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Northern Oil and Gas Action Program

NOGAP CUMULATIVE BIBLIOGRAPHY

February 1992

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INDIAN AND NORTHERN AFFAIRS CANADA

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NOGAP
CUMULATIVE
BIBLIOGRAPHY

February 1992

Northern Oil and Gas Action Program

SOMMAIRE

La présente bibliographie contient des renvois et des sommaires au sujet des rapports, publiées ou non, produits sous l'égide du Programme d'initiatives pétrolières et gazières dans le Nord (PIPGN). Le PIPGN est un programme de recherche et de planification d'une durée de huit ans qui vise à préparer le gouvernement fédéral et les administrations territoriales à participer à des grands projets de mise en valeur des hydrocarbures qui gisent au nord du 60° parallèle.

La bibliographie cumulative du PIPGN préparé avec l'assistance de Arctic Institute of North America's Arctic Science and Technology Information (ASTIS) renferme 395 citations. Pour faciliter la consultation, les citations sont groupées en quatre grandes catégories idéologiques (sujets) comme le montre la table des matières. À l'intérieur de chaque catégorie, les citations apparaissent en ordre ascendant de numéro de dossier de l'ASTIS. Les citations qui s'appliquent à plus d'une grande catégorie apparaissent sous la catégorie la plus pertinente et un renvoi est fait à la fin des autres catégories sous la rubrique Voir aussi.

Les index renvoient à la section principale de la bibliographie à l'aide d'une combinaison grande catégorie par sujet et numéro ASTIS. Les index géographique et idéologique (sujet) puisent dans les thésaurus géographique et idéologique de l'ASTIS. Tous les auteurs, tant les particuliers que les entreprises, (organismes parrains, y compris) sont répertoriés dans l'index des auteurs. Les articles de tête (comme le, la, un, etc.) n'apparaissent pas dans l'index des titres. L'index des séries répertorie tous les grands ouvrages dont un rapport fait partie, y compris les projets du PIPGN présentés par numéro de projet.

Les personnes désireuses d'obtenir les rapports cités dans la bibliographie devraient d'abord s'adresser à leur bibliothèque de référence locale ou à l'éditeur du document. Si cette démarche demeure sans résultat, le rapport peut toujours être obtenu par prêt entre bibliothèques auprès de l'un des endroits dont le code apparaît à la dernière ligne qui précède le résumé. L'explication des codes se trouve dans la publication Sigles des bibliothèques canadiennes que vous pouvez consulter au service des prêts interbibliothèques de toute bibliothèque canadienne.

92-03467/

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INTRODUCTION

PURPOSE

This cumulative bibliography contains citations and abstracts for published and unpublished reports completed under the Northern Oil and Gas Action Program (NOGAP). These items have been funded wholly or partly by NOGAP.

One of the NOGAP's operating objectives is to make its products widely known and available. This cumulative bibliography (volumes 1–4), is issued in support of this objective. This cumulative bibliography is also available in computerized format "Folio Views". A copy can be obtained from the NOGAP Secretiat on request, by phoning 997–8293 or writing the NOGAP Secretariat, 10 Wellington Street, room 948, Les Terrasses de la Chaudière, Hull, Quebec K1A 0H4.

THE PROGRAM

NOGAP is an eight–year research and planning program intended to advance the state of federal and territorial government preparedness for major hydrocarbon development north of 60°.

Government preparedness for major hydrocarbon production refers generally to acquiring the knowledge and analytical capability to make appropriate decisions concerning major northern development proposals. Preparedness requires the ability to evaluate environmental impacts and mitigate adverse ones; to develop guidelines and techniques to minimize hazards; to plan for additional public services and infrastructure; and, to implement means of enhancing northern opportunities and benefits from hydrocarbon development.

NOGAP funds are used to accelerate work on current projects or to undertake new activities which existing budgets cannot accommodate. Projects are proposed by NOGAP participants to support their responsibilities in connection with northern hydrocarbon development. They are undertaken within the context of generic development scenarios which have been adopted for the program.

SCOPE OF THE BIBLIOGRAPHY

The bibliography is multi–disciplinary by virtue of the organizations participating in NOGAP – five federal departments and both territorial governments:

FEDERAL GOVERNMENT

1) Indian and Northern Affairs Canada
2) Fisheries and Oceans
3) Environment Canada
4) Energy, Mines and Resources Canada
5) Canadian Museum of Civilization – Archaeological Survey of Canada
6) Government of the Yukon
7) Government of the Northwest Territories

Transport Canada, which participated directly in the program during its first few years now finances its research and planning through "A" base resources.

The cumulative bibliography contains all the reports produced completely or partially with NOGAP funding and submitted to the NOGAP Secretariat up until August 1991. Some of these reports have been published, primarily in well-known departmental series. A majority of the reports have not been formally published, although some may later be published in existing series. The reports are final, unless otherwise noted.

ORGANIZATION OF THE BIBLIOGRAPHY

This cumulative NOGAP Bibliography was prepared with the assistance of the Arctic Institute of North America's Arctic Science and Technology Information (ASTIS) and contains 395 citations. Citations are grouped into broad subject categories as shown in the Table of Contents to allow easy browsing. Within each category citations are listed in ascending order by ASTIS record number. Citations that apply to more than one broad subject category are listed in the most applicable category and are cross-referenced in the "See Also" list at the end of other pertinent categories.

The indexes refer back to the main section of the bibliography using a combination of broad subject category and ASTIS number. The subject and Geographic Indexes use terms from the ASTIS subject and geographic thesauri. All personal and corporate authors, including sponsoring organizations, are listed in the Author Index. Leading articles (A, The, etc.) are removed in the Title Index. The Serial Index lists all larger works of which a report is part, including NOGAP projects sorted by project number.

Those wishing to obtain reports cited in the bibliography should first contact their local research libraries or the publisher of the document. If this approach is unsuccessful the report may be obtained on interlibrary loan from one of the locations indicated by codes on the last line preceding the abstract. The codes are explained in the publication *Symbols of Canadian Libraries*, which is available in the interlibrary loan department of any Canadian Library.

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A – GEOGRAPHY, GEOMORPHOLOGY, AND CARTOGRAPHY

A-206806

Canadian Beaufort Sea physical shore-zone analysis : final report / Dobrocky Seatech Limited. Harper, J.R. Reimer, P.D. Collins, A.D. Canada. Indian and Northern Affairs Canada [Sponsor]. Canada. Energy, Mines and Resources Canada [Sponsor].

Sidney, B.C. : Dobrocky Seatech Ltd., 1985.

viii, 105, [149] p. : ill., maps ; 28 cm.

(NOGAP project no. A.05 : Physical environment : process and impacts)

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Appendices.

References.

OORD, NWYIN

An analysis of the Canadian Beaufort Sea coastal zone (Alaskan/Yukon border to Baillie Islands) was conducted to provide regional summaries of (a) coastal morphology, (b) coastal stability and (c) coastal processes. ... A total of 2,077 km of coastline were examined using aerial photographs, low altitude oblique video imagery and previously existing field studies. ... Six coastal types were defined ... and were used to characterize the coastal zone. The results indicate a predominance of erosional landform types ... with relatively few (<20%) widely dispersed accretional landforms. Over 1,000 comparisons of coastal stability were made using 1950's and 1970's air photos. The results indicate that the Beaufort Sea coast is undergoing wide scale regional retreat. ... The presence of significant quantities of terrestrial ice in the coastal sediments is one of the primary causes of the wide scale retreat. It is also hypothesized that the Canadian Beaufort Sea is undergoing a relative sea level rise, which is contributing to the rapid retreat. ... This is manifest in the dominance of erosional landforms. An important exception occurs on the western Yukon coast where long linear barrier islands appear stable. It is speculated that onshore movement of material due to ice push is the primary process responsible for supplying material to these barriers. (Au)

A-206814

Beaufort Sea coastal sediment study, numerical estimation of sediment transport and nearshore profile adjustment at coastal sites in the Canadian Beaufort Sea / Keith Philpott Consulting Limited. Pinchin, B.M. Nairn, R.B. Philpott, K.L. Canada. Indian and Northern Affairs Canada [Sponsor]. Canada. Energy, Mines and Resources Canada [Sponsor].

Thornhill, Ont. : Keith Philpott Consulting Limited, 1985.

2 parts (various pagings) : ill. ; 28 cm.

(Open file – Geological Survey of Canada, no. 1259)

(NOGAP project no. A.05 : Physical environment : process and impacts)

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Appendices.

References.

Contents: Pt. I, text. – Pt. II, data.

Copies available from Maritime Resource Management Services, P.O. Box 310, Amherst, N.S., B4H 3Z5, $195.80.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN, NSDB, ACSP, OOG, BVAG

This report responds to a need for better data on coastal processes in the Canadian Beaufort Sea for the siting and design of new shore-base facilities. Numerical estimates of alongshore sediment transport and nearshore profile adjustments are developed for the following sites: North Head, N.W.T.; Stokes Point, Yukon; and Tuktoyaktuk, N.W.T. The influence of storm surges on coastal processes is also investigated. The evolution of the shoreline at King Point under existing conditions and with a total littoral barrier structure has been modelled. Offshore and nearshore wave climates have been computed for 7 sites, the 6 mentioned above plus Pauline Cove on Herschel Island. They are based on new fourteen-year parametric hindcasts. The inshore wave climates were computed using two-dimensional spectral transfer techniques with allowance for shallow water equilibrium spectral forms. (Au)

A-210463

Coastal erosion and sedimentation in the Canadian Beaufort Sea / Forbes, D.L. Frobel, D.

(Current research – Geological Survey of Canada, paper 85- 1B, p. 69-80, ill.)

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

References.

Document not seen by ASTIS. Citation from NOGAP.

ACU

Sediments are supplied to the Beaufort Sea coast primarily from river and cliff sources. Mackenzie Delta is the major depositional feature, but has a predominantly erosional outer shoreline, despite high sediment supply and locally wide mudflats revealing sediment sink locations. Other features include cliffs, breached lake embayments, flooded tundra flats, lagoons, estuaries, deltas, beaches and barriers. Coastal surveys during 1984 included extensive oblique aerial video coverage, 22 beach profiles at 8 sites, sediment sampling, and 98 measurements of cliff recession at 11 sites. Beach deposits range from cliff-top gravels (up to 6.0 m above mean sea level) and gravel barriers (up to 2.2 m) to wide sandy spits and barrier islands with crest elevations as low as 0.4 m. Driftwood deposits occur as high as 6.0 m. Observed rates of cliff recession show high spatial and temporal variability, with 5-year means as high as 13 m/a. (Au)

A-308714

Coastal erosion and shoreface evolution in the southern Canadian Beaufort Sea / Hequette, A. Canada. Geological Survey.

Dartmouth, N.S. : Geological Survey of Canada, 1988.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

A one page preprint with a handwritten note saying: "Canadian Association of Geographers, 1988".

Document not seen by ASTIS. Citation from NOGAP.

OOG

With the exception of the Mackenzie Delta, the coastline of the southern Canadian Beaufort Sea consists of low to moderately elevated unconsolidated cliffs. Although the Beaufort Sea is ice-free during only three months a year and wave energy is restricted by pack ice offshore, the coast is undergoing regional retreat with very high erosion rates (>10 m/a in some locations). When ground ice is present in the surficial sediments, it is an important factor controlling cliff retreat as it leads to slumping (retrogressive thaw failure). Regression analyses of erosion rates with ground ice content, sediment texture, cliff height and wave energy revealed medium to poor correlation. This shows that the recessive evolution of the shoreline can not be explained solely in terms of wave-induced or land based processes (thaw settlement, retrogressive failure, mudflows ...), so other geomorphic agents must contribute to the coastal retreat. The comparison of nearshore echo-sounding records with earlier bathymetry from the 1960's showed substantial changes in the shoreface profile, it is proposed that the evolution of the submarine slope has a significant effect on the recession of the coastline. Degradation of subseabed permafrost and sea

ice processes on the seafloor are suggested to be major factors influencing shoreface profile development. (Au)

See also: B-207330, B-292184, B-308633, B-308668, B-308676, B-308692, B-308706, B-308722, B-308730, B-308781, B-308790, B-308811, B-308820, C-308528, C-308544, C-308560, D-207489, D-207659, D-308420, D-308595, D-308609, D-309494, D-309516, F-210420, G-308579, G-308587, G-308625, I-204188, Q-308536, R-308390, U-207799, U-306495, U-308404, U-308919, U-309010, U-309036, U-309176, U-309290, U-309320, U-309370, X-190314, X-195499, X-287709.

B – GEOLOGY, MINERALOGY, GEOCHEMISTRY, AND PALÆONTOLOGY

B-206822

Report on evaluation of granular resource potential lower Mackenzie Valley / Hardy Associates (1978) Limited. Canada. Indian and Northern Affairs Canada [Sponsor].

Calgary, Alta. : Hardy Associates (1978) Ltd., 1986.

iv, 49, [26] p. : ill., maps ; 28 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

Appendices.

Bibliography.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

This study involved an extensive review of existing published and unpublished geological and geotechnical literature pertinent to the distribution of surficial materials along the potential Mackenzie Valley pipeline route. The locations of all possible granular deposits were plotted and geotechnical information on each deposit was compiled in tabular form. An overall assessment in terms of material quality and quantity was made. The deposits with the highest quality materials were further assessed to determine the additional work required to evaluate fully the deposits and to develop borrow pit management plans. The study identified 292 potential granular sources in the lower Mackenzie Valley (excluding Richards Island) and summarized all pertinent geological and geotechnical parameters for each source. An overall assessment of these sources identified 52 deposits which are excellent or good prospects. Recommendations are given for further investigation of these prospects as well as for poorer quality deposits and bedrock sources to develop granular material. Summary tables of potential borrow source data and maps displaying the location and quality of deposits are included. (Au)

B-207098

Granular resource evaluation : Richards Island, N.W.T. / EBA Engineering Consultants Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Edmonton, Alta. : EBA Engineering Consultants Ltd., 1986.

iv, 32 p. : ill. ; 28 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

A geotechnical evaluation of granular resource prospects on Richards Island was conducted during 1986 to re-evaluate and update information on the remaining resources on Crown lands in the northern Mackenzie Delta. The main objectives of the study were to locate additional supplies of, and to prepare development plans for sources determined to contain sufficient volumes of recoverable granular materials. The report includes summaries of the geological and geomorphic setting of Richards Island and of the field, laboratory and office procedures utilized in the evaluation. The results of the drilling program, laboratory testing and analysis are summarized in terms of overall material quality and quantity on a site-by-site basis. General recommendations for pit development and future work are provided. Detailed descriptions of site conditions, including borehole logs and laboratory test results, material qualities and quantities, and site-specific recommendations are presented in a separate appendix for each prospect investigated. (Au)

B-207110

Overview of granular resources potential for the western Beaufort (Yukon) continental shelf / Earth & Ocean Research Ltd. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Dartmouth, N.S. : Earth & Ocean Research Ltd., 1986.

iv, 78 leaves : ill. ; 28 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

Pocket enclosures.

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

This work is part of a program undertaken by Indian and Northern Affairs Canada to define systematically the sand and gravel deposits in the Beaufort Sea region. The study, conducted during February and March 1986, consisted of interpreting and integrating previously collected bathymetric, geophysical and geological data to provide an overview of the granular resource base. The area examined, about 5000 square km, extends from the Yukon coast north to the shelf edge at approximately the 80 m contour, and westward from the eastern end of Herschel Island at approximately 139 degrees W to the Yukon/Alaska boundary at 141 degrees W. The proven, probable and prospective resources are defined in terms of location, areal extent, thickness, volume and quality. This overview will assist in planning future exploration studies to delineate granular materials for use in onshore or offshore construction by industry and government. (NOGAP)

B-207322

1984 offshore geotechnical site investigation : Herschel Sill sites, Yukon Territory / EBA Engineering Consultants Limited. Canada. Indian and Northern Affairs Canada [Sponsor]. Canada. Geological Survey [Sponsor].

Calgary, Alta. : EBA Engineering Consultants Ltd., 1984.

20, [15] p. : ill. ; 28 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

This report presents a summary of the geotechnical data collected at the Herschel Sill. ... The investigation was performed to determine the distribution, thickness and quality of potential sand and gravel deposits on the Herschel Sill, and the general stratigraphy and geotechnical properties of the area. Field testing was carried out from the Arctic Kiggiak on October 11, 1984. (Au)

B-207330
Investigation of subsurface conditions at King Point, Yukon Territory / M.J. O'Connor & Associates Ltd. Canada. Indian and Northern Affairs Canada [Sponsor].
[S.l.] : M.J. O'Connor and Associates Ltd., 1986.
2 v. [163] p. : ill., maps, plans ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This report documents the findings of a geotechnical site investigation of the general subsurface conditions near King Point, Yukon Territory. The main objective was to acquire the necessary information to permit engineering assessment of the potential impacts of proposed developments on the offshore, coastal and onshore environments. The research program involved evaluation and synthesis of existing geological and geotechnical information, site investigation, laboratory and in situ testing, construction of a coastal sediment dynamics model, and utilization of the model to evaluate probable distributions and thicknesses of nearshore gravels. Volume I contains detailed descriptions of the research program, research conclusions and recommendations for additional investigation. Volume II (Appendices) contains borehole logs, data and test results, numerical estimates of sediment transport, proposed development scenarios and maps. (NOGAP)

B-207357
Beaufort Sea shorebase monitoring program : a data report on 1984 geochemical sampling / Nuclear Activation Services Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Hamilton, Ont. : Nuclear Activation Services Limited, 1986.
122 p. : ill. ; 28 cm.
(NOGAP project no. A.20 : Hydrocarbon activities : Marine research and management)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This data report is part of the joint government – industry Beaufort Sea shorebase monitoring program that is designed to monitor the marine environment along the Tuktoyaktuk Peninsula for potential impacts from oil industry activities. In the summer of 1984 sediment samples from 22 sampling stations along the Tuktoyaktuk Peninsula were collected. The sediment samples consisted of core and grab samples from 15 stations located in Tuktoyaktuk Harbour, 4 stations in McKinley Bay and 3 in Hutchison Bay. The results of the geochemical analysis of these samples for hydrocarbons, heavy metals, major elements, total organic carbon and sediment particle size are presented. (Au)

B-207535
King Point coastal zone sediment transport study (contractor's report on field operations) / Dobrocky Seatech Limited. Gillie, R.D. Canada. Geological Survey [Sponsor].
Sidney, B.C. : Dobrocky Seatech Ltd., 1985.
viii, 29 leaves, [105] p. : ill. ; 28 cm.
(Open file – Geological Survey of Canada, no. 1260)
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Copies available from Maritime Resource Management Services, P.O. Box 310, Amherst, N.S., B4H 3Z5, $29.15.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
NSDB, OOG, BVAG

This study was conducted at King Point on the Yukon coast of the Beaufort Sea from 24 August to 16 September, 1985 for the King Point Coastal Zone Sediment Transport Study. King Point has been proposed as a site for a port in connection with Beaufort hydrocarbon development. Information on the wind and wave climate, coastal geology, and rates and directions of sediment transport is required. The data collected in this study is being used to provide input to coastal sediment transport model predictions for the King Point area. The report contains a brief description of the study area and the design of the field experiment, followed by a detailed account of the instrumentation and techniques used, and an inventory of the data collected. Finally, a brief discussion of the field program makes suggestions for alterations or improvements to the techniques used. (NOGAP)

B-207551
Interpretation of Beaufort Sea 1985 high resolution refraction/reflection data / Fortin, G. Canada. Geological Survey [Sponsor].
Hull, Quebec : Guy Fortin, 1986.
i, 53 leaves, [5] leaves of plates : ill. ; 28 cm.
(Open file – Geological Survey of Canada, no. 1350)
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Pocket enclosure.
References.
Document not seen by ASTIS. Citation from NOGAP.
OOG

A combined high resolution seismic refraction/reflection survey was carried out during September 1985 by the Terrain Geophysics Group of the Geological Survey of Canada to test a deep towed, 12-channel marine eel in the Canadian Beaufort Sea. The primary objective was the detection of sub-bottom ice-bearing permafrost within about 20 m of the seabottom, as an aid in pipeline routing and wellsite evaluation. The study also provided velocity measurements of unfrozen seabed sediments, which may be useful in the search for granular deposits. The report describes the seismic compressional wave velocities and the geologic features encountered in the immediate sub-bottom along a number of regional lines. These lines were traversed north of Pullen Island on the Akpak Plateau and across the Kugmallit Channel, where future pipeline routes might be located. The lines comprise six profiles with 792 velocity observations along about 110 km of seismic data. These profiles pass through Isserk E-27, Amak L-30 and Kugmallit H-59 wellsites. Vertical incidence single channel reflection records were collected along five lines. (NOGAP)

B-207578
Sediment transport study at King Point, Yukon Territory / Atlantic Geoscience Centre. Morgan, P.
(Current research – Geological Survey of Canada, paper 86- 1B, p. 859-863, ill.)
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
References.
Document not seen by ASTIS. Citation from NOGAP.
NSDB, ACU, OOG

A field study was conducted at King Point to collect sediment transport and coastal zone data. Nearshore directional wave measurements were collected for the first time in the Canadian Beaufort Sea. The data also included wind speed and direction, bottom current velocities and directions, sediment samples, and beach and bathymetric profiles. The data will be used to calibrate numerical models to estimate wave climate and alongshore sediment transport rates and directions. (Au)

B-207632

Geological data compilation for marine areas of the Canadian Arctic Archipelago / M.J. O'Connor & Associates Ltd. Canada. Geological Survey [Sponsor].
[S.l.] : M.J. O'Connor & Associates, 1984.
21 p. : ill., maps ; 28 cm.
(Open file – Geological Survey of Canada, no. 1159)
(NOGAP project no. D.02 : Arctic Island channel geotechnics)
Copies available from Precision Microfilming Services Ltd., Halifax at users expense.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
NSDB, ACSP, OOG, BVAG

This open file comprises a comprehensive compilation of geological data sources developed over the period 1943-1984 pertaining to the Canadian Arctic Archipelago. The majority of the information assembled was related to the geological, geophysical and geotechnical properties of the unconsolidated sediments and shallow bedrock materials underlying and immediately adjacent to the marine areas. The open file comprises an annotated bibliography and 31 CHS charts showing boundaries of marine related studies, sample locations and track plots of government and industry surveys. (Au)

B-207667

Geological and cruise report on the bottom sampling program and operation of CSL TUDLIK on the CSS BAFFIN hydrographic cruise 84-015, Jones Sound, District of Franklin, N.W.T., Canada August-September 1984 / Geomarine Associates Ltd. Ruffman, A. Canada. Geological Survey [Sponsor].
Halifax, N.S. : Geomarine Associates Ltd., 1985.
vi, 87 leaves : ill. ; 28 cm.
(Open file – Geological Survey of Canada, no. 1261)
(NOGAP project no. D.02 : Arctic Island channel geotechnics)
Pocket enclosures.
Copies available from Precision Microfilming, Halifax, $39.00.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
NSDB, OOG

The Arctic Pilot Project prompted the Canadian Hydrographic Service to initiate a two-year, multidisciplinary study of the bathymetry, geology and geophysics of Jones Sound in 1983. For its second year, the Atlantic Geoscience Centre decided not to attempt a full multidisciplinary geophysical survey, given the problems encountered with ice, logistics and ship time in 1983. Instead, it equipped the Canadian Survey Launch (CSL) TUDLIK for shallower water, nearshore work. The prime areas investigated were those on the shelf and slope around the margins of Jones Sound, shoreward of the areas mapped in 1983 to establish continuity with the previously-mapped offshore areas, wherever possible. The work done included a compilation on chart scale of interpreted seabed sediment type, sediment boundaries and relevant seabed data. (NOGAP)

B-207683

Geochemical and mineralogical studies in the Arctic Archipelago / Memorial University of Newfoundland. Centre for Cold Ocean Resources Engineering. Macko, S.J. Segall, M.P. Pereira, C.P.G. Canada. Geological Survey [Sponsor].
St. John's, Nfld. : C-CORE, University of Newfoundland, 1985.
v, 19 leaves : ill. ; 28 cm.
(Open file – Geological Survey of Canada, no. 1315)
(NOGAP project no. D.02 : Arctic Island channel geotechnics)
Copies available from Precision Microfilming, Halifax, N.S., $10.80.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OOG, NSDB

The Byam Martin Channel region of the Canadian Arctic Archipelago has a clay mineral suite typical of northern, high latitude sediments, with chlorite and illite dominating the clay-sized fraction. Montmorillonite is prevalent (42-62%) in the nearshore areas of the Sabine Peninsula, Melville Island and Lougheed Island. The decrease of montmorillonite in sediments with distance from shore and from north to south in the study area is probably a result of differential flocculation and settling in the marine environment, and may be useful in determining local current patterns within the study area. Stable carbon and nitrogen isotopic analyses indicate three independent sources of organic material. Major localized inputs of 15N rich organics mix with cold water marine and terrigenous end members. (Au)

B-207705

Marine geological program in the Byam Martin Channel – Lougheed Island region, District of Franklin / Atlantic Geoscience Centre. MacLean, B. Vilks, G.
(Current research – Geological Survey of Canada, paper 86- 1A, p. 769-774, ill.)
(NOGAP project no. D.02 : Arctic Island channel geotechnics)
References.
Document not seen by ASTIS. Citation from NOGAP.
OOG, NSDB, ACU

A seabed sediment sampling program was carried out through the ice in the Byam Martin Channel – Cameron Island – Lougheed Island region of the Canadian Arctic Archipelago in April and May 1985. Sampling operations were carried out at 79 stations over a 23,200 square km area mainly with a 27 kg gravity corer. Maximum core recovery was approximately 1 m. Grab samples were obtained at 19 stations with a Dietz-Lafonde sampler. Preliminary results indicate that the upper metre of seabottom sediments consists predominantly of silt or clay with variable amounts of coarser material. Foraminifera in the surface sediments indicate a distinct faunal break at 200 m water depth which is related to water mass characteristics. (Au)

B-291781

Report on western Beaufort region concrete aggregate study / Klohn Leonoff Ltd. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Calgary, Alta. : Klohn Leonoff Ltd., 1988.
i, 58 p. : col. ill., maps ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

The authors evaluated conditions and sampling results from six potential concrete aggregate sources in the western Beaufort region, with laboratory testing to determine index properties, soundness, durability and aggregate reactivity. Each of the sources were also evaluated in terms of accessibility, facilities' requirements, conceptual layout and additional exploration requirements. The report concluded that three of the sites are promising for use as concrete aggregate sources and recommends an extended and detailed testing program. (NOGAP)

B-291790

An evaluation of the feasibility of developing granular borrow from the bed of the Mackenzie River / EBA Engineering Consultants Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Calgary, Alta. : EBA Engineering Consultants Ltd., 1987.

66, 17 p. : ill., technical drawings ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This study reviews the environmental and economic feasibility of developing granular materials from the Mackenzie riverbed for use as construction borrow. The Mackenzie River's naturally high flow rate and high suspended sediment content during the open water season will mask any effects summer dredging might have on water quality and suspended sediments. However, there is concern for the interference dredging may have on the migration of fish along the Mackenzie and on spawning areas. The report points out that there is a shortage of site specific information on riverbed materials and fish populations. It concludes that considerable research effort will be required before the potential value of the riverbed alluvium as a resource material can be firmly established. (NOGAP)

B-291803
Report to Department of Indian Affairs and Northern Development on Beaufort region quarry rock study / Golder Associates. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Vancouver, B.C. : Golder Associates Ltd., 1988.
2 v. (iii, 60; 6, ca. 90, 3, 17 p.) : ill., maps ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Contents: Volume I : Report, appendix. – Volume II : Supporting documentation.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

A geotechnical evaluation of the technical feasibility of developing six quarry rock sources in the vicinity of the Mackenzie Delta. These sites were assessed for their potential to provide various materials, from concrete aggregate to armour rock, for use in constructing shore protection, facilities and artificial islands. The evaluation included an investigation of site conditions, description of deposit characteristics and determination of rock properties at each of the sites. Volume I contains the text and appendix dealing with the site specific appraisals. Volume II contains all supporting documentation. (NOGAP)

B-291811
Supplementary report to the Department of Indian Affairs and Northern Development on Beaufort region quarry rock study / Golder Associates. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Vancouver, B.C. : Golder Associates, Ltd., 1988.
7, ca. 28 p. : ill. ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

A supplementary report which describes the subsequent appraisal of two existing quarry sites near Inuvik, N.W.T. The sites were visited in 1987 for additional reconnaissance mapping and to collect samples for laboratory testing. The laboratory tests are summarized and the engineering evaluations are amended. Additional recommendations for future work are provided. (NOGAP)

B-291820
Real-time marine resistivity system / Hardy BBT Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Calgary, Alta. : Hardy BBT Ltd., 1987.
35 p. : ill. ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

Marine resistivity measurements offer a valuable complement to seismic and acoustic techniques in mapping of seabed permafrost and granular deposits. The Hardy MICRO-WIP marine resistivity system was originally developed for use at Prudhoe Bay. The study team refined the existing marine resistivity system hardware and computer software to provide a real-time interpretation of the resistivity data. This capability is now available for routine surveying in offshore environments including the Beaufort Sea. (NOGAP)

B-291838
Granular resources management strategy south Slave region / Thurber Consultants Ltd. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Calgary, Alta. : Thurbur Consultants Ltd., 1987.
2 v. iii, 78 p. : ill. ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Partial contents: Volume I : text. – Volume II : appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

Depletion of the south Slave granular sources is investigated here. This study evaluated granular resources supply – demand situation; assessed suitability of regional resources for use as concrete aggregate; identified depleted and abandoned sources and site specific requirements for source rehabilitation; and, recommended a management strategy to promote conservation and efficient use of remaining materials. These topics are discussed on a source, management area, and regional basis. The results are summarized in a series of tables, maps and site plans. Volume I contains the text and supporting technical information is provided in Volume 2. (NOGAP)

B-292184
Beaufort Sea ocean dumpsite characterization / LGL Limited, Environmental Research Associates. Arctic Laboratories Limited. Canada. Environmental Protection Service [Sponsor].
Sidney, B.C. : Arctic Laboratories Ltd. ; King City, Ont. : LGL Limited, 1987.
xi, 100 p. : ill. ; 28 cm.
(NOGAP project no. C.04 : Ocean dump site designated for solid and contaminated wastes)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYEEP

This study characterized the sediments of two potential ocean dumpsites and surveyed for benthic infaunal, epifaunal populations and fish. The seabed was characterized using side-scan sonar coverage for bathymetry, profile, sediment, trace metal and hydrocarbon content. During a one week cruise involving 30 locations, samples were taken with a Smith-McIntyr grab. Otter trawls were also carried out to sample epibenthos and bottom fish. This field program also tested Hoff and Thomas (1986) predictions concerning both sampling size for each contaminant and applicability of the sediment grain size/contaminant relationship. (NOGAP)

B-292362

A small boat seismic reflection survey of the Lougheed Island Basin-Cameron Island Rise-Desbarets Strait region of the Arctic Island channels using open water leads / Atlantic Geoscience Centre. Sonnichsen, G.V. Vilks, G. Canada. Dept. of Energy, Mines and Resources [Sponsor].

Dartmouth, N.S. : Bedford Institute of Oceanography, 1987.

9 p. : ill. ; 28 cm.

(NOGAP project no. D.02 : Arctic Island channel geotechnics)

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NSDB

In July and August of 1986, a marine seismic reflection and sampling program was conducted in selected Arctic island channels using helicopter-transported inflatable boats in open water leads. This experimental technique allowed collection of the first continuous seismic reflection data in the region, as well as gravity cores and bottom photographs at four stations. (NOGAP)

B-292370

Cruise report of CSS Hudson cruise 86-027 / Atlantic Geoscience Centre. MacLean, B. Canada. Dept. of Energy, Mines and Resources [Sponsor].

Dartmouth, N.S. : Bedford Institute of Oceanography, 1987.

23 p. : ill. ; 28 cm.

(NOGAP project no. D.02 : Arctic Island channel geotechnics)

Appendix.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NSDB

A preliminary outline of the geological data obtained on Cruise 86-027 of the CSS Hudson from August 25 to September 26, 1986. Extensive geologic information was obtained for Wellington Channel, Byam Martin and Austin Channels, eastern Barrow Strait, as well as reconnaissance data in Sophia and northern Queens Channels and at various localities along the north side of Parry Channel south of Melville and Bathurst Islands. These areas represent active and potential oil transportation routes. With the exception of parts of eastern Barrow Strait, little or no regional marine geological data of the type acquired previously existed for the regions surveyed during this cruise. This report also contains data on coastal zone sites in the central Queen Elizabeth Islands as well as geothermal data. (NOGAP)

B-308412

Addendum report part C on western Beaufort region concrete aggregate study / Klohn Leonoff Ltd. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Calgary, Alta. : Klohn Leonoff Consulting Engineers, 1989.

39, 11 leaves : ill. ; 30 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

Partial contents: Concrete aggregate test, Beaufort Sea : Properties of concrete prisms subjected to cyclical freezing and thawing and petrographic characteristics / J.E. Gillott.

Appendix.

References.

OORD, NWYIN, ACU

This report presents and discusses the results of a long-term laboratory study of potential sources of concrete aggregates in the Western Beaufort Region. The main goal of the study was an assessment of the suitability of the sources for production of concrete aggregates on the basis of their performance under standard alkali-aggregate reactivity testing and under simulated Arctic marine test conditions. In this report, work completed as earlier phases of the study is reviewed and summarized and the cumulative results of the long-term alkali-aggregate testing over a total 24 months duration are presented and discussed. The results of thin section petrographic examinations and scanning electron microscopy are also presented and compared with the results of rapid freeze-thaw tests and the alkali-aggregate reactivity tests. Four of the six sites examined may be suitable, but further field testing would be required to determine quantities available and material homogeneity. (NOGAP)

B-308439

DIAND "compilation and cataloguing of Beaufort bathymetric and high resolution shallow geophysical survey data" 1988 / McElhanney Surveying & Engineering Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Calgary, Alta. : McElhanney Geosurveys Ltd., 1988.

30 leaves ; 29 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

OORD, NWYIN

This report describes the compilation and cataloguing of bathymetric and marine high-resolution geophysical data for the Beaufort Sea. Reports and trackplots of the marine surveys obtained from the major Beaufort petroleum operators and government were reviewed with regard to their potential usefulness in developing an inventory of offshore granular resources. Information on each of the previous surveys was compiled in a database consisting of 50 separate "fields" and trackplots were assembled for digitizing. Listings of the catalogued surveys, by sponsoring company or agency, location and type of survey are included. The report concludes that, although a substantial body of information collected in the early years of Beaufort exploration could not be located during the study, the majority of Beaufort Sea surveys have been examined and catalogued, and that information collected since 1980 will be of greater value than earlier data. (NOGAP)

B-308447

Digitization of Beaufort granular resource information : final report / Earth & Ocean Research Ltd. Peters, J. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

[S.l.] : Earth & Ocean Research Ltd., 1988.

[63] leaves : ill. ; 28 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

Partial contents: Appendix I: The Beaufort Sea granular resource database – digitized track inventory – Appendix II: The Beaufort Sea granular resource database : list of digitized track databases correlated with the McElhanney catalogue – Appendix III: the SUPER-TECH workstation.

Appendices.

References.

OORD, NWYIN

High-resolution seismic and sidescan track information from the Beaufort Sea was compiled in digital database format and converted to the format of a geographic data management system used for selectively displaying, overlaying and plotting geophysical survey and other information. Geographic data on recent government and industry geophysical surveys which was available already in digital format was simply converted to the required format. Previous compilations of historical regional geophysical survey data from both government and industry sources and detailed site surveys from DIAND defined borrow blocks, were manually digitized. The spatial database compiled in this study includes about 1500 geophysical survey lines, totalling nearly 29,000 line-km, which was believed to represent essentially all of the then-existing geophysical data that was considered suitable for Beaufort granular materials evaluation. Recommendations for the modification of the spatial database system and the use and upgrading of the data were provided. (NOGAP)

B-308455
Beaufort Sea geotechnical database : volume I / EBA Engineering Consultants Limited. MacLeod, N.R. Canada. Supply and Services Canada [Sponsor].
[S.l.] : EBA Engineering Consultants Ltd., 1988.
[43] leaves : 1 map ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Partial contents: Appendix A: Catalogue data dictionary and selected report entries – Appendix B: Borehole log source reports.
OORD, NWYIN

This report describes the compilation of geotechnical information collected for the Beaufort Sea, primarily by the oil industry and including some 100 reports that contain logs of more than 1400 geotechnical borings, into a database of geotechnical information for use in the evaluation of offshore granular resources. General information on the location, amount and availability of existing subsurface data and its usefulness in granular materials evaluation has been catalogued in database format. Some information was excluded for proprietary reasons, however, almost 1300 borehole logs were made available to the study. Detailed subsurface data, including stratigraphic, basic engineering classification and laboratory test data from these logs has been interpreted, standardized, summarized and compiled in an offshore granular borehole database. The criteria adopted for this process are described in the report. Detailed engineering and foundation data not applicable to granular resource evaluation was not included in the database. (NOGAP)

B-308463
Beaufort Sea geotechnical and geophysical databases / EBA Engineering Consultants Limited. Olthof, R.I. Canada. Supply and Services Canada [Sponsor].
[S.l.] : EBA Engineering Consultants Ltd., 1991.
ca. 125 leaves : 1 map ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Partial contents: Appendix A: Report catalogue data dictionary – Appendix B: Report catalogue centrism B.1 Geotechnical, B.2 Geophysical and hydraulic – Appendix C: Borehole/corehole/surficial sediment log/geophysical data source reports – Appendix D: Additional references.
OORD, NWYIN, ACU

This report summarizes 1991 efforts to expand geotechnical and geophysical databases, originally compiled as separate projects (NOGAP A.4-22 and A.4-15, respectively) in 1988. These databases include catalogues of reports of geotechnical and surficial geological studies and of hydrographic and high-resolution geophysical surveys undertaken or sponsored by both government and the Beaufort Sea petroleum operators, as well as a borehole database of stratigraphic and basic soil test information. Logs of an additional 71 boreholes or coreholes and another 332 surficial sediment samples have been included in the Beaufort Sea geotechnical borehole database, which now totals more that 2700 logs. These additional data were contained in 21 reports, which were also added to the existing database of geotechnical reports. Another 14 high-resolution geophysical surveys and 4 hydrographic surveys have been compiled in the geophysical reports catalogue. (NOGAP)

B-308471
Mackenzie Valley transportation corridor geotechnical database / EBA Engineering Consultants Limited. Olthof, R.I. Canada. Supply and Services Canada [Sponsor].
Calgary, Alta. : EBA Engineering Consultants Ltd., 1991.
[125] leaves : maps ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Partial contents: Appendix A: Report catalogue data dictionary – Appendix B: Mackenzie Valley report catalogue entries – Appendix C: Mackenzie Valley borehole and/or testpit log source reports – Appendix D: Additional references.
References.
OORD, NWYIN, ACU

This report summarizes efforts to compile a database that catalogues fieldwork, reports, maps and other information on potential sources of granular and other construction materials in the Mackenzie Valley corridor. This catalogue of information complements separate existing databases containing descriptions of potential borrow sources in both the Upper and Lower Mackenzie Valley corridor. Several federal departments, the territorial government and industry have made information available for inclusion in these databases. The present study identified more than 150 previous granular resource, terrain analysis, surficial geology, geotechnical engineering and other studies containing at least 14,000 boreholes. Due to budget and time constraints, only 74 of these studies have been included in the report catalogue database. Recommendations are provided for correlation of the studies, borrow sources and boreholes. (NOGAP)

B-308633
Late Quaternary seismo-stratigraphy of the inner shelf seaward of the Tuktoyaktuk Peninsula, Canadian Beaufort Sea / Hill Geoscience Research. Hequette, A. Hill, P.R. Canada. Geological Survey [Sponsor].
Halifax, N.S. : Hill Geoscience Research, [198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

This paper describes the seismic stratigraphy of the Quaternary sediments on the inner shelf (<20 m water depth) of the Canadian Beaufort Sea, seaward of the Tuktoyaktuk Peninsula. Two regional unconformities and three seismic sequences are defined from the high resolution seismic records. The deeper sequence (Sequence III) is characterized by large-scale crossbeds. This sequence has been correlated with the Tingmiark Sand lithostratigraphic unit, previously defined farther offshore, which is thought to be a glaciofluvial unit deposited during lower-than-present sea level conditions in the late Wisconsinan. The lower boundary of the overlying sequence (Sequence II) is an unconformity (U/C 2), interpreted as the pre-transgression land surface. Sequence II is discontinuous and consists of localized basin-fill and channel-fill units. Most of these are remnants of thermokarst lakes partially eroded during the Holocene transgression. This sequence is separated from the uppermost sequence (Sequence I) by another unconformity (U/C 1) which is the shoreface erosion surface generated by the Holocene sea level rise. Sequence I is composed of a transgressive sand sheet overlain, in deeper areas, by recent marine muds. Seaward of Hutchison Bay, a large sub-bottom depression within Sequence III is interpreted as a late Wisconsinan fluviatile channel. According to our seismic interpretation, the Tuk Phase morainal and glaciofluvial deposits existing onland on the Tuktoyaktuk Peninsula, and which were previously assigned to the Early Wisconsinan, would be of late Wisconsinan age. (Au)

B-308641
Late Quaternary stratigraphy and sedimentation of the eastern Canadian Beaufort shelf / M.J. O'Connor & Associates Ltd. Hill, P.R. Blasco, S.M. O'Connor, M.J. Atlantic Geoscience Centre [Sponsor].
Calgary, Alta. ; M.J. O'Connor & Assoc. Ltd., [198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

Three seismic sequences separated by two unconformities were defined on high resolution seismic profiles from the eastern Canadian Beaufort Shelf. Sequence 1 which forms a surficial veneer over most of the shelf, is thicker in seabed troughs and becomes generally thinner eastward on banks. An unconformity (U/C 1) separates Sequences 1 from the underlying Sequence 2, which is most clearly identified in the seabed troughs as a progradational wedge. Sequence 2 thins at bank margins and commonly becomes indistinguishable from the top part of Sequence 3. A second unconformity (U/C 2) separates Sequence 2 and 3 in trough areas and defines deeply incised and infilled valleys which were traced across the shelf. Sequence 3 is a complex unit showing horizontal and progradational reflectors, cut-and-fill structures or simply poor acoustic penetration. Five lithostratigraphic units were defined from borehole cuttings and cores. (1) The Uviluk Sand consists of well-sorted, fluvial and aeolian sand, representing possible outwash deposits formed more than 21,000 B.P. It may be contemporaneous with (2) the Tarsiut Silt, a marine to deltaic unit composed of predominantly silt and clay lithologies. The Tarsiut Silt formed between 27,000 years B.P. and possibly the early Holocene. (3) The Tingmiark Sand is interpreted as a second unit of fluvial and aeolian sand. Peat beds near the top of the unit are overlain by reworked marginal marine sands containing bivalve fragments. This unit is of late Wisconsinan to Holocene age and is incised by the large valleys defined by U/C 2 in seismic profiles. (4) The Kaslutut Sand consists of fine-grained sand and contains peat beds giving ages ranging from 17,730 years B.P. to 7,700 years B.P. It is probably correlative with the upper part of the Tingmiark Sand and corresponds to Sequence 2 of the seismostratigraphy. (5) The Sauvrak Clay consists of marine silty clay equivalent to Sequence 1 and was deposited following Holocene transgression. This stratigraphy records the geologic history of the Beaufort Shelf from approximately the middle Wisconsinan to the present. A late Wisconsinan glacial advance produced a sandy outwash plain, fed by channels originating in the Mackenzie Delta region, and deposited the Tingmiark Sand and marginal marine Tarsiut Silt. These channels later became incised as a response to a lowering of relative sea level (RSL). As RSL recovered, a complex transition took place from glacial-dominated sedimentation to sedimentation dominated by the Mackenzie River, including infill of the incised valleys, reworking of the Tingmiark Sand and deposition of the Kaslutut Sand and Sauvrak Clay. (Au)

B-308650

Coastal geology of the King Point area, Yukon Territory, Canada / Hill, P.R. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, [198-?].

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Document not seen by ASTIS. Citation from NOGAP.

OOG

At King Point, on the Yukon coast of the Canadian Beaufort Sea, a sand/gravel barrier is migrating landward across a sequence of lacustrine muds which were deposited in a thermokarst lake. The lacustrine deposits were laid down between 12 ka and the time of breaching of the thermokarst lake. Breaching occurred sometime later than 1.7 ka., but more likely a few hundred years ago. Estimates of sediment supply and barrier growth can best be reconciled if a model is assumed that involves initial erosion of a 1 km wide headland, an extension of a diamict ridge which forms King Point itself, followed by straightening of the coast and an increased sediment supply from gravel-rich cliffs north of the ridge. This is compatible with historical evidence for development of the barrier. Comparison of sediment supply, retreat rates and longshore sediment transport potential lead to the conclusion that the development of the barrier and coastal retreat are limited by the longshore transport potential. The evolution of the king point barrier is similar to that of gravel barriers in temperate regions, but short-term increases in sediment supply through thermal erosion of adjacent bluffs and erosion of the lower shoreface by ice-scouring may be important additional factors. (Au)

B-308668

Storm-dominated sedimentation on the inner shelf of the Canadian Beaufort Sea / Hill, P.R. Nadeau, O.C. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, [198-?].

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Document not seen by ASTIS. Citation from NOGAP.

OOG

The inner shelf of the Canadian Beaufort Sea is characterised by a succession of surficial fine-grained facies changes. Seaward of shoreface sands and silts, these facies are: (i) thin-bedded silt and clay couplets (<1 cm thick); (ii) massive to graded medium to thick-bedded silt beds (up to 20 cm thick); (iii) thin silt beds (<2 cm thick) with thick interbeds of bioturbated silty clay; and (iv) bioturbated silty clay with no silt beds. These facies are related to wave action at the seabed. The massive to graded medium to thick-bedded facies occurs between water depths of 4.2 m and 5.5 m and is interpreted to result from resuspension events by waves during storms. A nearbed region of suspended sediment concentration (SSC), observed near the 5 m isobath, increased in concentration during moderate storms. Time series of nearbed SSC and wave heights in 5.9 m of water recorded rapid resuspension resulting in SSC values of 4000 mg/l during a severe storm. The thin-bedded silt and clay facies found shoreward of this resuspension zone is interpreted to result from attenuation of wave energy in the resuspension zone. The amount of resuspension decreases shoreward resulting in thinner redeposited beds. Seaward of the resuspension zone, the frequency of bottom resuspension decreases with increasing water depth, reflecting the lower frequency of very large storm waves. This is reflected in the deeper water facies where bioturbated clay becomes the dominant facies, with thin silt beds representing infrequent bottom resuspension during the largest storms. (Au)

B-308676

Report of field activities, 1987 : Beaufort Sea coastal zone geotechnics / Hill, P.R. [Compiler]. Canada. Geological Survey.

[S.l] : Canada. Geological Survey, 1987.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Contents: Part 1: Field activities report, Ellice Island, Mackenzie Delta, N.W.T., July 12-August 20, 1987 / K. Jenner (Dalhousie University) – Part 2: Mackenzie River Delta sediment sampling, 1987 – K. Kranck and T. Milligan (Bedford Institute of Oceanography) / Part 3: Cruise report : C.S.S. John P. Tully, Beaufort Sea, August 7-12, 1987 / R.A. Harmes (Geological Survey of Canada) – Part 4: Cruise report: C.C.G.S. Nahidik, September 11-18, 1987, Beaufort Sea / P.R. Hill (Atlantic Geoscience Centre) – Part 5: Field survey and cruise report, U.S.G.S. R/V Karluk, 20 August – 16 September 1987, Tuktoyaktuk Peninsula coast and inner Beaufort Sea shelf / A. Hequette (Geological Survey of Canada) – Part 6: Beach dynamics study, Tibjak Beach, Beaufort Sea coast, August 22 to September 17, 1987 / P.R. Hill (Atlantic Geoscience Centre) – Part 7: Far-field oceanographic measurements at the Amauligak F-24 well-site, August – October, 1987 / D.B Fissel, D. Tuele and O.J. Byrne (Arctic Sciences Ltd.).

G.S.C. project 830007.

Document not seen by ASTIS. Citation from NOGAP.

OOG

This document consists of 7 reports: 3 cruise reports, 1 field activity report, a sediment sampling report, a beach dynamics study, and an oceanographic measurements report. (ASTIS)

B-308684

Fine-grained storm deposits on the inner shelf of the Canadian Beaufort Sea / Hill, P.R. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, 1988.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

One page conference preprint with a handwritten note "AGS Colloquium 1988".

Document not seen by ASTIS. Citation from NOGAP.

OOG

The inner shelf of the Canadian Beaufort Sea is characterised by a seaward succession of seabed fine-grained facies. Seaward of shoreface sands and silts, the surficial facies show the following sequence: (i) thin-bedded silt and clay couplets (<1 cm thick); (ii) massive to graded medium to thick-bedded silt beds (up to 20 cm thick); (iii) thin silt beds (<2 cm thick) with thick interbeds of bioturbated silty clay; (iv) bioturbated silty clay with no silt beds. The massive to graded medium to thick-bedded facies occurs between water depths of 4.2 m and 5.5 m and is interpreted to result from major resuspension events in a zone of maximum wave energy during large storms. Oceanographic measurements support this interpretation: a nearbed maximum of suspended sediment concentration (SSC) is observed centred at the 5 m isobath and increases in intensity during moderate storms. Time series of nearbed SSC and wave heights at 5.9 m water depth record strong resuspension resulting in SSC values of 4000 mg/l during strong storm conditions. The thin-bedded silt and clay facies found shoreward of this strong resuspension zone can be interpreted to result from attenuation of wave energy in the resuspension zone. The amount of resuspension therefore decreases shoreward resulting in thinner beds. Seaward of the strong resuspension zone, the frequency of bottom sediment resuspension decreases with water depth, reflecting the lower frequency of very large storm waves. This is also reflected in the deeper water facies where bioturbated clay becomes the dominant facies, with thin silt beds representing infrequent bottom resuspension during the largest storms. (Au)

B-308692

Marine geology of the Canadian Beaufort inner shelf and coastal zone / Hill, P.R. Hequette, A. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, 1988.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

One page preprint with a handwritten note saying: "G.A.C. 1988".

Document not seen by ASTIS. Citation from NOGAP.

OOG

The Beaufort Shelf has undergone marine transgression during the Holocene. The thickness and lithology of Holocene sediments on the inner shelf varies according to sediment supply, pre-Holocene topography and sedimentary processes (primarily by waves and currents). Sediment supply is dominated by the Mackenzie River which supplies largely silt and clay and which has constructed a large multi-distributary delta. The silt and clay is transported eastward and forms thick inner shelf deposits seaward of the Mackenzie Delta and Richards Island, and in Kugmallit Bay. Sand and gravel are supplied primarily by erosion of low-lying Pleistocene cliffs along the Yukon coast and to the north and east of the Mackenzie Delta. The Yukon sector of the inner shelf is sediment starved and consists of an erosive platform. East of the Mackenzie Delta, sandy coastal deposits and landforms are common. Off Richards Island, transgressive silts and clays overlie sandy coastal sediments, while off the Tuktoyaktuk Peninsula, the inner shelf is predominantly sandy and Holocene accumulation is relatively thin. The Mackenzie Trough and two large late Wisconsinan outwash valleys have been filled with fine-grained sediment during transgression: Holocene sediment thicknesses in these areas exceed 20 m. The Beaufort Shelf is storm-dominated and wave energy generally increases from west to east. In areas of fine-grained sediments, large storm waves cause massive resuspension and subsequent redeposition of sediments. (Au)

B-308706

The Beaufort Sea coastal zone geological and geotechnical constraints to offshore development / Hill Geoscience Research. Hill, P.R. Atlantic Geoscience Centre [Sponsor].

Halifax, N.S. : Hill Geoscience Research, 1989.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

One page preprint with a handwritten note "G.S.C. Forum, Calgary, 1989.

Document not seen by ASTIS. Citation from NOGAP.

OOG

The coastal zone is a critical area of concern during the development of oil and gas from the Beaufort Sea. The placement of artificial islands, pipeline landfalls and shore facilities in this coastal zone is likely to be required to facilitate production. A long term program to (i) measure rates of coastal erosion and deposition, (ii) determine seabed properties and (iii) understand important sedimentary processes was begun under the Northern Oil and Gas Action program. With the exception of a few limited areas of accretion, the Beaufort coast is retreating at rates ranging from less than 1 m/a to more than 20 m/a on average. A monitoring program to determine rates and variability in coastal retreat has been established and erosion of up to 6 m have been observed over one year periods. A preliminary seismic stratigraphy has been established for the coastal area between Shallow Bay and Atkinson Point. In the vicinity of the Mackenzie Delta, a thick sequence of fine-grained sediments has accumulated during the Holocene. A mid-Holocene delta front seaward of the present delta has been identified and also indicates that the coast is presently being transgressed. Holocene sediments become thinner to the east where higher elevations of coarser Pleistocene sediments have prevented direct accumulation of Mackenzie-derived sediment except in drowned valleys relict from a lower stand in sea-level. Seaward of the Tuktoyaktuk Peninsula, thin late Holocene sediments overlie Pleistocene outwash sands and early Holocene thermokarst lake deposits. Transgression in this area is marked by the development and landward migration of sandy spits and barriers. The physical properties of sediments in the coastal zone are influenced by this depositional history and modern wave-dominated depositional processes. Waves actively resuspend bottom sediments during storms. Storm deposits are characterised by graded fine sand and silt beds with relatively thin clay interbeds. These deposits have distinctive geotechnical properties and are characteristically overconsolidated. Seabed scour related to storm wave conditions as an important concern to the design of a pipeline crossing the area. (Au)

B-308722

A small boat survey of the Lougheed – King Christian – Cameron islands region of the northwestern Canadian Arctic using open water leads / Sonnichsen, G.V. Atkinson, A. Canada. Geological Survey.

[S.l. : s.n., 1987?].

[3] leaves ; 28 cm.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

(Open file – Geological Survey of Canada, no. 1903)

Title page includes the following information: "Report of field activities, AGC program #87-100".

References.

Document not seen by ASTIS. Citation from NOGAP.

OOG

... Sixteen leads with a combined length of 280 km were surveyed in 1987 (Figure 2). A total of 310 line-kilometres of sparker, 225 km of 12 kHz profiles, and 43 km of Bubblepulser were collected (Table 2). The longest survey line was 44 km and the shortest was approximately

3 km. Bottom samples were collected from 3 locations during the survey (Fig. 3, Table 2). Two sites were chosen along Lead 2 based on the acoustic profiles. A marker had been placed on the lead edge for the first sample location. The second had to be located by the helicopter's Omega navigation system and landmarks; this was much less satisfactory and was only successful on the second attempt. A grab sample was first collected to determine the water depth at each site, followed by a gravity core. Then bottom photographs were attempted at the location. ... Subbottom penetrations on the sparker seismic profiles of up to 80 m (water velocity, 1500 m/s) show gently dipping to near horizontal strata of sedimentary bedrock, overlain by unconsolidated sediments ranging from less than 5 m (Figure 5) to at least 45 m thick. Sediments are tentatively divided into two stratigraphic units on the basis of their acoustic character. The lowermost, which is both the most widespread and the thickest, rests directly on the underlying bedrock. This unit consists of unstratified sediments of variable thickness, with a typically hummocky and sometimes incised surface (Figure 6). This unit is interpreted to be glacial drift on the basis of its constructional character and similarity to marine sediments interpreted as glacial drift elsewhere (King and Fader, 1986; Josenhans et al., 1986; Praeg et al., 1986). The incised seabed relief is interpreted to be iceberg scours, which are probably relict considering the absence of icebergs in the area at present. In some areas this lower unit has a smoother surface relief and a more transparent acoustic character. Sediments with similar character are observed in Austin Channel where they are interpreted as glacial drift on the basis of sample data (MacLean et al., in prep.). These variations in character may reflect changes in the sediment sources or depositional processes, e.g., ice loading associated with the drift. The 12 kHz acoustic profiles show that in places the lower unit is overlain by an acoustically unstratified, transparent unit with a smooth surface which is ponded in bathymetric depressions or draped over the underlying sediments. Thicknesses range from less than 1 m up to 5 m. Despite only localized appearances of the unit on the acoustic profiles, sediment sample data indicate this unit is regionally extensive. This disparity suggests the upper unit forms an extensive veneer thinner than the resolution of the acoustic systems used. The upper unit is interpreted to represent postglacial mud because of its stratigraphic position and its similarity to postglacial muds in other Canadian Arctic areas (Praeg et al., 1986). Also, acoustically and texturally similar muds identified in Jones Sound contain shells dated between 2610 +- 110 and 8410 +- 200 years BP (G. Vilks, 1986, pers. comm.). (Au)

B-308730

Geomorphology and bedrock geology of southern Norwegian Bay, Queen Elizabeth Islands, Northwest Territories /
Praeg, D.B. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, [198-?].
1 v. : ill., maps.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
(Open file – Geological Survey of Canada, no. 1925)
References.
Document not seen by ASTIS. Citation from NOGAP.
OOG

This report presents marine geological information derived from echosounding and shallow seismic reflection surveys carried out in Norwegian Bay south of 77 30 N (Figure 1) in September, 1987 from CSS Baffin during BIO cruise 87-027, a collaborative program by the Canadian Hydrographic Service (CHS) and the Atlantic Geoscience Centre (AGC) (Praeg, 1987). Previous bathymetric information for this area was largely limited to spot soundings obtained through the near-perennial sea ice cover (CHS chart 7950). The regional bedrock geology is well-known from surface mapping of the adjacent islands (Balkwill et al., 1983), and from subsurface geophysical and well information (Hea et al., 1980), but the near-surface bedrock geology of Norwegian Bay was previously unreported. Bathymetric and geologic maps are presented at a scale of 1:250,000 (Sheets 1 to 3, attached). The bathymetric map (Sheet 1) is of a generalized nature and is not intended for navigation; color shaded relief plots of the bathymetry are also included in the report (Figure 2). The geologic maps present both surface (Sheet 2) and subsurface (Sheet 3) information. The report includes supporting information from the Panarctic et al. North Buckingham L-71 well (Figure 3), and from seismic reflection profiles (Sections 1 to 12). ... Sheet 1 and Figure 2 show that depths of less than 100 m extend offshore from the islands as shelves, and occur as banks in Belcher Channel and eastern Norwegian Bay. Shelves are especially prominent off Devon Island, and between North Kent and Graham islands where they form a sill that divides the bay into western and eastern basins. Figure 2 shows that the surfaces of the shelves are dissected by small channels, which in some cases separate small banks. Below 100 m shelves and banks give way to a series of troughs, in excess of 400 m deep in the western and eastern basins. The western basin is the convergence of troughs extending east from Belcher Channel, north from the area of Arthur Fiord, northwest from Cardigan Strait, and west from the sill between North Kent and Graham Islands. Cardigan Trough (informal name) is steep-sided with an irregular overdeepened floor locally over 350 m deep. The two adjacent troughs are broader and shallower, with irregular floors. Figure 2 shows that the shallowing of the basin and trough walls is marked by steep areas (or scarps) with 10's of metres relief, resulting in a stepped appearance. The western margin of the basin and the walls of Cardigan Trough are marked by especially prominent sets of scarps, with overall relief of 100's of metres. The eastern basin contains a prominent trough that deepens northeast from Hell Gate, and is connected to troughs to the east separated by two north-south ridges. The easternmost trough extends north along Ellesmere Island from the mouths of a group of fiords, and has depths of over 350 m. Section 2 shows that Hell Gate Trough (informal name) has prominent stepped walls, with total relief of 100's of metres. The smoother appearance of the eastern trough walls on Figure 2 largely reflects the local 2 km grid size, although bottom profiles do show that scarps are less common there despite relief of 100's of metres. (Au)

B-308749

Marine geological and geotechnical investigations in Wellington, Byam Martin, Austin and adjacent channels, Canadian Arctic Archipelago / MacLean, B.
Sonnichsen, G. Vilks, G. Powell, C. Moran, K.
Jennings, A. Hodgson, D. Deonarine, B.
Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, [1986?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Handwritten note on the title page says: "GSC paper".
Document not seen by ASTIS. Citation from NOGAP.
OOG

Marine geological and geophysical investigations were carried out in Wellington, Byam Martin and Austin channels, and in eastern Barrow Strait-western Lancaster Sound from CSS HUDSON in 1986. These provided information on: the distribution, thickness, composition, depositional environments, geotechnical properties, and regional geological setting of the surficial sediments, and structure of the near surface bedrock. The data indicate widespread occurrence of sediments of apparent glacial origin (glacial drift) which overlie variably dipping sedimentary bedrock, and are in turn locally overlain by up to a few metres of acoustically stratified and acoustically transparent sediments, interpreted to represent glaciomarine and postglacial sediments respectively. The drift unit locally forms constructional features interpreted to be moraines, and in places contains multiple sequences. Surficial sediment thicknesses in Wellington Channel commonly are less than 10 metres but locally reach 25 metres, are somewhat greater in Byam Martin and Austin Channels (up to 50 m), and generally greater in eastern Barrow Strait, where they locally reach 100 m. Geotechnical, foraminiferal and textural data show consistent correlations with one another and with the acoustic stratigraphic units. The postglacial sediments have high water content, low bulk density and low shear strength: the converse applies to the glaciomarine and glacial drift sediments. Foraminifera are relatively diverse in the postglacial sediments, less diverse in the glaciomarine sediments, and the glacial drift is barren. Magnetic susceptibility data suggest that most of the sediments probably are derived from Paleozoic rocks of the Arctic Islands, but that glacial drift in northern Prince Regent Inlet and glaciomarine sediments in eastern Barrow Strait-Lancaster Sound may

have been derived partly from Precambrian rocks bordering part of Gulf of Boothia south of Prince Regent Inlet. Some seafloor sediments, particularly the glacial drift, have been modified by ice scour. (Au)

B-308757

Report of Atlantic Geoscience Centre activities in the Arctic Island channels during CSS Baffin cruise 87-027 / Praeg, D.B. Atlantic Geoscience Centre.

[Dartmouth, N.S.] : Atlantic Geoscience Centre, [1987?].

1 v. : ill., maps.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

(Open file – Geological Survey of Canada, no. 1694)

References.

Document not seen by ASTIS. Citation from NOGAP.

OOG

The geophysical records and sediment samples obtained in Norwegian Bay (Figure 2) provide information on bedrock geology, unconsolidated seabed sediments, and seabed features. Geophysical records show that the bay is underlain by an acoustically broadly to closely stratified sequence indicative of gently deformed to flat-lying strata of sedimentary bedrock (Figure 3). Angular unconformities within this sequence (Figures 4,5) suggest division into at least 3 units, which probably include correlatives of both the Paleozoic sedimentary strata of Ellesmere Island/Grinnel Peninsula, and the Mesozoic sedimentary strata of Graham and Cornwall Islands. Most of the large-scale morphologic features of the bay have been carved into these units. This is demonstrated by truncated strata on slopes (Figures 3,4), which are common throughout the bay; steeper slopes are often separated by areas of gentler slope, resulting in a broadly 'stepped' appearance. Structural control on morphology may also be important for a few ridges and trough on the eastern side of the bay (Figure 5), and in Belcher Channel. Unconsolidated sediments in the bay are thin, generally less than 5 m (Figures 3,7), although thicker accumulations (up to 30 m) occur southwest of Graham Island (Figure 6), on the eastern side of the bay (Figure 5), and locally (Figure 4). The sediments are distinguished from the underlying bedrock by an angular unconformity; this is readily recognized from reflector truncations, but the unconformity surface itself is often poorly defined (Figures 6,7). Two main sediment types are recognized: (1) acoustically unstratified sediments with an irregular surface, which vary in thickness from less than 5 m to accumulations up to 30 m (Figures 5,6), and (2) overlying acoustically transparent (muddy) sediments with a smooth surface (Figure 8), which occur in deeper water both southeast and west of Graham Island, and in the southwest corner of the bay, in thicknesses up to 5 m, 2 m and 3 m respectively. Acoustically stratified sediments occur locally at the base of the mud west of Graham Island (<1 m thick), and at the foot of a steep slope southeast of Graham Island (<6 m thick). The two main sediment types resemble units interpreted as glacial drift and overlying post-glacial mud in other channels of the Arctic Archipelago (MacLean and Vilks, 1986; Sonnichsen and MacLean, in press). ... (Au)

B-308765

A reconnaissance study of the marine geology of the Lougheed – King Christian – Cameron islands region, northwest arctic island channels / Sonnichsen, G.V. MacLean, B. Atlantic Geoscience Centre.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

(Current research – Geological Survey of Canada, paper 88- 1D, p. 115-120, ill., 1 map)

References.

ACU

A marine geophysical and geological survey was conducted in July and August, 1987, in the Arctic Island channels east of Lougheed Island and south of King Christian Island. This helicopter-supported program used inflatable boats operated in open-water leads that form in the near-perennial ice cover during the summer thaw. Sixteen leads and over 280 km of seafloor were surveyed with single-channel sparker and 12 kHz profiling systems. Subbottom penetrations as deep as 80 m show gently dipping strata of sedimentary bedrock, overlain by unconsolidated sediments ranging from less than 5 m to at least 45 m. Sediments interpreted to be glacial drift are the thickest and the most widespread. These are over-lain by up to 5 m of draped and sometimes ponded, acoustically transparent sediments, which are interpreted to be postglacial marine muds. Sediment samples and bottom photographs were collected at three locations along the leads. (Au)

B-308773

Studies of the Quaternary sediments of Wellington, Byam Martin and adjacent channels, Canadian Arctic Archipelago / MacLean, B. Sonnichsen, G. Powell, C. Taylor, R. Hodgson, D. Jennings, A. Vilks, G. Atlantic Geoscience Centre.

[S.l. : s.n., 1987?].

3 leaves : 28 cm.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Handwritten note on page one indicates "16th Arctic Workshop, 1987".

Paper presented at Arctic Workshop, 16th, Edmonton, Alta., 30 Apr.-2 May, 1987.

Document not seen by ASTIS. Citation from NOGAP.

OOG

Unconsolidated seabed sediments in Wellington, Byam Martin and Austin channels, and parts of northern Viscount Melville Sound and Barrow Strait, were investigated from CSS Hudson in 1986 by means of acoustic profiling and sediment sampling. Acoustic and sample data were also obtained farther north in the Lougheed-Cameron-Melville Island region from small boats in sea ice leads. Regionally, acoustic data show the widespread presence of an irregular, lowermost unit overlying bedrock, which lacks coherent acoustic reflectors and is interpreted to be glacial drift (till). This unit is locally overlain by up to a few metres of acoustically stratified and/or acoustically transparent mainly silty and clayey sediments which contain some coarser apparently ice-transported clasts. These sediments are inferred to represent glaciomarine and post-glacial marine deposition. In Wellington Channel, unconsolidated sediments are commonly less than 5 m and rarely more than 10 m thick. ... Surficial sediments in Byam Martin and Austin channels, in general, are thicker than in Wellington. ... In northern Viscount Melville Sound glacial drift, up to 18 m thick, is the main sediment unit. ... In eastern Barrow Strait, glacial drift deposits are up to 100 m thick and locally contain multiple sequences and form apparent morains. These sediments are variably overlain by acoustically stratified and acoustically transparent muddy sediments, that reach 4 m and 7 m in thickness, respectively. No chronological information is available yet for these sediments nor have correlations been made with the generally sparse and undated glacial deposits on adjacent islands. The grounded or floating glaciers responsible for the drift in the channel floors may have originated locally or been part of more regionally extensive ice sheets. (Au)

B-308781

Quaternary geology of arctic interisland channels / MacLean, B. Vilks, G. Sonnichsen, G. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, 1988.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

One page preprint with a handwritten note indicating: "GAC, May 1988".

Document not seen by ASTIS. Citation from NOGAP.

OOG

Wellington, Byam Martin and Austin channels, eastern Barrow Strait, and Norwegian Bay contain widespread deposits of glacial drift, locally overlain by thin (typically 2 to 3 m) deposits of glaciomarine and postglacial sediments. Locally the drift forms positive features

interpreted as moraines and in places contains multiple sequences. The glacial drift may include deposition by both local ice caps and more regionally extensive ice sheets. Regionally the surficial sediments range from a few metres to 30 metres, but thicker deposits occur locally, e.g. to 100 m in eastern Barrow Strait. Geotechnical, foraminiferal and textural data show consistent relationships between piston cores and with the acoustic stratigraphic units recognized from high resolution seismic profiles. The postglacial sediments have high water content, low bulk density and low shear strength; the converse applies to glaciomarine and glacial drift sediments. Foraminifera are relatively diverse in the post glacial sediments have high water content, low bulk density and low shear strength; the converse applies to glaciomarine and glacial drift sediments. Foraminifera are relatively diverse in the post glacial sediments, less diverse in glaciomarine sediments, and the glacial drift is barren. The surficial sediments lie on variably dipping sedimentary rocks which are structurally more complex in Norwegian Bay than farther west. (Au)

B-308790

Quaternary sediments in interisland channels of the Canadian Arctic Archipelago / MacLean, B. Milks, G. Sonnichsen, G. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, 1987.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

One page preprint with a handwritten note indicating: "The Canadian Arctic Islands Missing Dimension, Ottawa, November 1987.

Document not seen by ASTIS. Citation from NOGAP.

OOG

During the summer of 1986, Quaternary seabed sediments in Wellington, Byam Martin and Austin channels, parts of northern Viscount Melville Sound, eastern Barrow Strait, and the Lougheed-Cameron Islands region were investigated by acoustic profiling and sediment sampling. The surveys show the widespread presence of an irregular, acoustically incoherent, lowermost unit overlying the bedrock, and interpreted to be glacial drift. The glacial drift is overlain by up to a few metres of acoustically stratified and acoustically transparent sediments interpreted to be glaciomarine and post glacial, respectively. The total sediment thicknesses commonly are less than 5-10 metres in Wellington Channel, but locally reach 22 m in two moraine-like accumulations in the southern half of the channel. The glaciomarine and post glacial sediments mainly are confined to the northern part of the channel. Glacial drift deposits in the Byam Martin-Austin Channel and Lougheed-Cameron Island regions locally reach 53 m in thickness and in places contain multiple sequences and possible moraines, but younger sediments occur only locally and amount to only a few metres in thickness. Quaternary sediments of eastern Barrow Strait include glacial drift which locally reaches 100 m in thickness with some multiple and moraine-like developments. "Glaciomarine" and "post glacial" sediments occur mainly in the bathymetric depressions where they reach maximums of about 3 m and 7 m, respectively. No chronological data yet are available for these offshore sediment units within the study area. The onshore Quaternary record in places includes late Wisconsinan tills, earlier tills of undetermined ages, as well as evidence of marine transgressions and subsequent emergence. (Au)

B-308803

Late Wisconsinan paleoceanography: Canadian Arctic Archipelago / MacLean, B. Sonnichsen, G. Vilks, G. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, [198-].

1 leaf ; 28 cm.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Abstract of paper presented at INQUA.

Document not seen by ASTIS. Citation from NOGAP.

OOG

Since 1985, extensive studies in the marine channels of the Canadian Arctic Archipelago have been carried out by shallow high resolution reflection seismics and seabed sampling with cores and bottom grabs. In all the channels investigated to date, seismic profiles show evidence of glacial drift deposits intermittently overlain by acoustically laminated and transparent sediments. On the west side and south end of the Wellington Channel, a ridge of drift deposits is interpreted as glacial moraine. There is some evidence for multiple drift sequences locally in Wellington and Byam Martin Channels and in Barrow Strait. Differences in acoustic character suggest that these may represent separate glacial events. The total thickness of unconsolidated sediments ranges from 2-20 metres in Wellington Channel, locally up to 50 metres in Byam Martin Channel and up to 70 metres in eastern Barrow Strait. The relatively thin sediment cover observed over the bedrock in most of the channels consists predominantly of glacially deposited sediments. Laminated glacial marine and the transparent post glacial sediments are relatively poorly developed. Lag deposits suggest winnowing of bottom sediments by currents in some localities, for example in Wellington Channel. Sidescan sonograms of the sea floor in many areas show iceberg scours, which are interpreted as mainly relict. (Au)

B-308811

Geological studies of interisland channels of the Canadian Arctic Archipelago / MacLean, B. Vilks, G. Sonnichsen, G. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, 1988.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Document not seen by ASTIS. Citation from NOGAP.

OOG

Investigations of seabed geology of interisland channels of the Canadian Arctic Archipelago have been undertaken by the Atlantic Geoscience Centre during the last three years. ... The investigations dealt primarily with the Quaternary sediments: their distribution, composition, thickness, geotechnical properties, depositional environments, modifying processes, and regional geological setting. These studies have also provided reconnaissance information on the near surface bedrock. The information was gathered in Wellington, Byam Martin and Austin channels, and eastern Barrow Strait from CSS Hudson in 1986, using conventional geophysical profiling and geological sampling techniques. Similarly, data was collected in Norwegian Bay from CSS Baffin in 1987. Helicopter transported small boats were used for surveys with portable seismic systems in leads in the permanent and semi-permanent sea ice of the Lougheed-King Christian-Cameron-Melville island region during 1986 and 1987. Through-the-ice sediment sampling was also carried out in the latter area in 1985. The seismic data suggest that glacial drift is the most widespread and thickest surficial sediment unit. The drift deposits range in thickness from less than 5 m to more than 20 m locally in Wellington Channel, to 50 m or more in parts of Byam Martin and Austin channels, to 40 m in the Lougheed-King Christian island region, to 30 m in Norwegian Bay, and up to 100 m locally in eastern Barrow Strait. Apparent morainal accumulations and multiple drift sequences have been observed locally on acoustic profiles in these areas. ... (Au)

B-308820

Surficial and bedrock geology of arctic marine channels / MacLean, B. Vilks, G. Sonnichsen, G. Moran, K. Praeg, D. Hodgson, D. Jennings, A. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, 1989.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Document not seen by ASTIS. Citation from NOGAP.

OOG

Geological studies have been carried out in Wellington, Byam Martin

and Austin Channels, eastern Barrow Strait, Norwegian Bay, and in the Lougheed-King Christian-Cameron islands region. Glacial drift is the thickest and most widespread surficial sediment unit in each of these areas. Moraines and multiple drift sequences are present locally. Glaciomarine and postglacial sediments up to a few metres in thickness mantle the drift in bathymetric depressions. These sediment units each have distinctive texture, geotechnical properties, foraminiferal assemblages, and acoustic character. Paleozoic sedimentary rocks appear to underlie most of the interisland channels surveyed. In Norwegian Bay these are overlain northward by Mesozoic-Cenozoic strata of the Sverdrup Basin. (Au)

B-309664

Geological investigations of the Canadian Beaufort Sea coast / Hill Geoscience Research. Hill, P.R. Hequette, A. Ruz, M.-H. Jenner, K.A. Atlantic Geoscience Centre [Sponsor].
Dartmouth, N.S. : Atlantic Geoscience Centre, 1991.
xvi, 348 p : ill., maps ; 28 cm.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Appendix.
References.
OORD

Although AGC had proposed a six-year program, funding for the program was approved by Treasury Board for a four-year period, 1984-1988. The entire NOGAP program was terminated in 1988, after the initial four years, with the loss of the assigned person-years and leaving a large amount of data unsynthesized. Funds to complete the project and this report were obtained from the Marine Environmental Initiative of the Geological Survey of Canada and from PERD 6.3. Hill Geoscience Research was contracted to undertake three main tasks: (i) to synthesize and make preliminary interpretations of the various data sets collected in the course of the AGC research program; (ii) to determine future priorities for coastal zone research in the Beaufort Sea; and (iii) to recommend a new program of research to meet those priorities. The intent of this report is to provide a comprehensive summary of our knowledge about the coastal zone. For purposes of this report, the coastal zone is defined as the region between the cliff line and the 10 m isobath, including depositional landforms such as deltas, spits and barrier islands. The report only includes analyses of field data collected by AGC or its contractors. Additional published information describing the adjoining offshore and land geology are included as background. For more detailed accounts of the terrestrial geology, permafrost and ground ice, the reader should contact the Terrain Sciences Division of the Geological Survey of Canada. ... (Au)

See also: A-206806, A-210463, A-308714, C-308528, C-308544, C-308560, D-292060, D-308420, D-308595, D-308609, D-309494, D-309540, F-208809, F-281271, G-308579, G-308587, G-308625, I-189294, I-208817, I-309559, J-309680, Q-167614, Q-291943, Q-308510, Q-308536, U-306495, U-308838, U-308846, U-308927, U-309028, U-309079, U-309109, U-309117, U-309176, U-309222, U-309273, U-309290, U-309370, V-309656, X-190314, X-309389.

C – SOILS AND PERMAFROST

C-291854

Geophysical assessment of waste drilling fluid containment sites in the Mackenzie River Valley region, N.W.T. / Hardy BBT Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Calgary, Alta. : Hardy BBT Ltd., 1988.
viii, 30 p. : ill. ; 28 cm.
(NOGAP project no. A.05 : Physical environment : process and impacts)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

The authors report on the results of a field survey, utilizing geophysical soil conductivity measurements coupled with near-surface soil chemistry analyses, to determine if drilling wastes are migrating away from the boundaries of eight capped sumps. Based on the collected evidence, six of these were rated as having some likelihood of leakage. It appears that poor drilling fluid containment results primarily from factors related to location. The report suggests future studies relating to the potential environmental hazard of leaking sumps at drill sites. (NOGAP)

C-292001

Norman Wells pipeline monitoring sites ground temperature data file, 1986 / Canada. Geological Survey. Burgess, M.M. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Ottawa : Geological Survey of Canada, 1987.
24 p. : ill. ; 28 cm.
(Open file – Geological Survey of Canada, no. 1621)
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

A cooperative long-term ground thermal regime monitoring program, along the Norman Wells to Zama pipeline, was established in 1983 to examine the effects of construction and operation on permafrost and terrain condition and evaluate approaches used to minimize terrain disturbance. Thirteen main monitoring sites were instrumented. This report provides a collection of the 1986 data presented in tabular form and as plots of ground temperature. (NOGAP)

C-292346

Studies of the Environmental Effects of Disturbances in the Subarctic [S.E.E.D.S.] / University of Alberta. Kershaw, G.P. Canada. Dept. of Agriculture [Sponsor]. Canada. Environment Canada [Sponsor].
Edmonton, Alta. : University of Alberta, 1988.
97 p. : ill. ; 28 cm.
(NOGAP project no. C.20 : Thermal effect of soil and vegetation disturbance)
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEEPS

The objective of this project was to define, evaluate, and quantify the short-term physical and thermal changes in the permafrost-active layer as a result of human disturbance. Disturbance of the vegetation cover results in degradation of the near-surface permafrost and the thermal

inequilibrium leads to subsidence and erosion. The degradation of the near-surface permafrost within the first two years following disturbances is shown to be considerable. Findings also indicate that the physical and thermal instability of the terrain from human-induced perturbations has important implications for buried pipelines. (NOGAP)

C-308528

Geothermal and geomorphic observation, 1984-1987 / Burgess, M.M. Harry, D.G. Canada. Dept. of Indian Affairs and Northern Development.

(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)

(Canadian geotechnical journal, v. 27, 1990, p. 233-244)

Document not seen by ASTIS. Citation from NOGAP.

OORD, OOG

A long-term permafrost and terrain research and monitoring program along the 869 km buried oil pipeline between Norman Wells, Northwest Territories, and Zama, Alberta, has been undertaken by the Geological Survey of Canada, in cooperation with the Department of Indian and Northern Affairs Canada. The two main program components are (1) the detailed qualification of changes in the geothermal regime and geomorphic conditions at instrumented monitoring sites and (2) general observations of terrain conditions and performance along the pipeline route. Pipeline operation commenced in April 1985. Observations during the first 2.5 years of pipeline operation indicate that, as expected, the pipe thermal regime and ground thermal regime have not yet stabilized in response to construction and operation. Warming trends in both mean annual pipe temperature and mean annual right-of-way ground temperature have occurred. Surface settlement in permafrost terrain is ongoing in the pipe trench as well as on the remainder of the right-of-way. Surface erosion has occurred, particularly at stream crossings and on low-angle slopes lacking erosion control structures. (NOGAP)

C-308544

Norman Wells pipeline permafrost and terrain monitoring geothermal and geomorphic observations / Burgess, M.M. Harry, D.G. Canada. Dept. of Indian Affairs and Northern Development.

(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)

(41st Canadian Geotechnical Conference, Kitchener, October 1988, preprint volume. – [S.l. : s.n.], 1988, p. 354-363)

Document not seen by ASTIS. Citation from NOGAP.

OORD

A long term permafrost and terrain research and monitoring program along the 869 km Norman Wells to Zama pipeline has been undertaken by the Geological Survey of Canada, in cooperation with Indian and Northern Affairs Canada. The two main program components are: (1) the detailed quantification of changes in the geothermal regime and geomorphic conditions at instrumented monitoring sites, and (2) general observations of terrain conditions and performance along the pipeline route. Observations during the first 2.5 years of pipeline operation indicate that the pipe thermal regime and ground thermal regime have not yet stabilized in response to construction and operation. Right-of-way surface settlement in permafrost terrain is ongoing. Surface erosion has occurred, particularly at stream crossings and on low angle slopes. (NOGAP)

C-308552

Norman Wells pipeline monitoring site ground temperature date [sic] file : 1987 / Burgess, M.M. Naufal, J.A. Canada. Dept. of Indian Affairs and Northern Development.

[S.l. : s.n.], 1989.

27 p.

(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)

(Open file – Geological Survey of Canada, no. 1987)

Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD, OOG

This report is a collection of all the temperature data gathered in 1987 at the Geological Survey of Canada/Indian and Northern Affairs ground thermal regime monitoring sites along the Norman Wells pipeline. Date from 145 cables are presented in both graphical and tabular form. (NOGAP)

C-308560

Land slide processes in permafrost soils along proposed pipeline corridors, Mackenzie Valley, Northwest Territories : Interim report / Savigny, K.W. Institute for Research in Construction (Canada) [Sponsor]. Northern Affairs Program (Canada). Land Management [Sponsor].

[S.l. : s.n.], 1991.

65 p. : ill.

(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)

Document not seen by ASTIS. Citation from NOGAP.

OORD

This research is part of increased monitoring of slope stability in the Mackenzie Valley pipeline corridor. The objectives include: (a) renewal of in situ monitoring of creep movements at the proposed Canadian Arctic Gas crossing of the Great Bear River near Fort Norman; (b) evaluation of how creep movements may be interrelated with landslide processes; and, (c) reconnaissance of the existing pipeline right-of-way and proposed pipeline corridor from Thunder River to approximately Fort Simpson. Aerial photography of the proposed Canadian Arctic Gas crossing was obtained. Fort Norman residents were hired to cut re-growth. Instrument installations were completed in August, 1990. Instruments were read and surveys carried out in August and September, 1990. A reconnaissance of the Mackenzie Valley pipeline corridor from Thunder River to Fort Simpson was completed. Although too little time was available for detailed study, three broad issues that may have a long-term influence on utilization of the corridor are discussed. The influence of fire on slope processes is considered using the 1986 fires in the Thunder River area as an example. Debris avalanche and debris torrent activity along portions of the corridor, and the impact these mass wasting processes have on hydraulic design at stream crossings are examined with reference to recent severe storms in the Wrigley area. Finally, retrogressive slumps involving failure of frozen material are discussed in light of a suspected increased frequency of these landslides in the Mackenzie Valley. (NOGAP)

C-309729

Site and soil descriptions for the Norman Wells pipeline soil temperature study / Tarnocai, C. Kroetsch, D.J. Land Resource Research Centre (Canada).

Ottawa : Land Resource Research Centre, 1990.

46 p. : 1 map ; 28 cm.

(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)

(Land Resource Research Centre (Canada). Contribution, no. 89-56)

Appendices.

References.

OOFF

Soil temperature probes were installed and the associated soils were described and sampled at thirteen locations along the Norman Wells pipeline. In this report detailed site and soil descriptions and chemical and physical data for each of the soils are presented. The mineral soils occurring at the sites developed on lacustrine, till, alluvial and eolian materials. Organic soils also occur at some of the sites, they developed on peat materials. (NOGAP)

See also: B-207551, B-291820, B-308455, B-308463, B-308471, B-308641, B-308706, B-309664, I-204188, J-207543, J-309680, Q-207560, Q-308510, Q-308536, U-309176, X-195499, X-287709, X-308501.

D – OCEANOGRAPHY

D-80420

Sailing directions – Great Slave Lake and Mackenzie River / Canadian Hydrographic Service.
6th ed.
Ottawa : Dept. of Fisheries and Oceans, 1981.
xii, 159 p. : ill., 1 folded map ; 26 cm.
(NOGAP project no. B.05 : Hydrography, Mackenzie River)
ISBN 0-660-11022-9.
References.
ACU

This volume contains a detailed description of the Athabasca-Mackenzie waterway from Fort McMurray, Alberta to Tuktoyaktuk, N.W.T., including routes to be followed and navigational hazards present. (ASTIS)

D-207071

Report on the analysis of bathymetric data : western Beaufort (Yukon) continental shelf / Challenger Surveys & Services Ltd. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Edmonton, Alta. : Challenger Surveys & Services Ltd., 1986.
ii, 43 leaves : ill. ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Pocket enclosure.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

A computer-based analysis of bathymetric data collected in the Western Canadian Beaufort Sea was undertaken to develop, test and implement a method of detecting subtle bathymetric anomalies and to provide a description of the regional bathymetry. Perspective mesh drawings of the sea floor were used as an improved method of depicting subtle bathymetric anomalies. Recommendations are included for undertaking future projects of this nature. (NOGAP)

D-207314

1982-1983 Beaufort Sea shorebase monitoring program; statistical analysis and recommendations for future programs / Dobrocky Seatech Limited. Yunker, M.B. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Sidney, B.C. : Dobrocky Seatech Ltd., 1986.
xxii, 191 p. : ill. ; 28 cm.
(NOGAP project no. A.20 : Hydrocarbon activities : Marine research and management)
Final report.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This report presents a statistical analysis of the 1982 and 1983 data reports produced for the Beaufort Sea Shorebase Monitoring Program. Recommendations are made regarding sampling and analytical considerations for the monitoring program as it is presently designed. The overall design of marine chemistry monitoring programs is also discussed as it applies to the Beaufort Sea Shorebase Monitoring Program requirements. Finally, requirements for quality assurance and quality control are discussed. (Au)

D-207462

Forecasting Beaufort Sea wind waves by a momentum balance method / MacLaren Plansearch Limited. Canada. Atmospheric Environment Service [Sponsor].
Halifax, N.S. : MacLaren Plansearch Ltd., 1986.
1 v. (various pagings) : ill. ; 28 cm.
(NOGAP project no. C.16 : Beaufort Sea forecasting techniques (sea state forecast model))
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, OTM

The study developed, tested and evaluated a "practical" wave forecast procedure for the Beaufort Sea, based on an existing Atmospheric Environment Service lake wave model. The particular model utilized in this study is a deep water parametric model based on a momentum balance procedure developed in the late 1970s by Dr. Mark Donelan of the Canadian Centre for Inland Waters. The study consisted of four mutually dependent tasks: (1) conversion of the AES lake wave model to a Beaufort Sea wave model, including documentation of the software; (2) assembly of a data base consisting of relevant environmental data (i.e., winds, waves, ice, bathymetry, etc.); (3) model runs and case studies for a pre-selected study period; (4) comparison of model results against observed data. The model used in this study is an Eulerian parametric wave forecast model, which differs from other parametric models in a number of ways. The general conclusion reached is similar to that stated in a number of previous model applications for the Great Lakes; i.e., the model has considerable potential for use as an operational wave forecaster for the Beaufort Sea but a significant amount of work still needs to be done, particularly in the areas of modeling marginal ice conditions and obtaining accurate input winds. (NOGAP)

D-207489

Forecasting Beaufort Sea wind waves by a momentum balance method : supplementary data base report / MacLaren Plansearch Limited. Canada. Atmospheric Environment Service [Sponsor].
Halifax, N.S. : MacLaren Plansearch Ltd., 1986.
1 v. (various pagings) : maps ; 28 cm.
(NOGAP project no. C.16 : Beaufort Sea forecasting techniques (sea state forecast model))
Document not seen by ASTIS. Citation from NOGAP.
OORD, OTM

This report documents the data base assembled and/or identified as part of the title study. Although the study is confined to the period July 25 to October 5, 1981, data for the years 1982, 1983 and 1984 has been identified to facilitate future testing and evaluation of models for the Beaufort Sea area. The primary source of obtaining wind, bathymetry and observed (wind and wave) data was from the AES archived data files for the years 1981 to 1984. The report documents all of the raw data collected and describes to some extent the results of the preprocessing done in order to utilize the data for the study. The files described in this report are: (1) wind data – CMC winds for 1981 study period and 1981-1984, and observed winds for 1981 study period; (2) bathymetry and shoreline data – fine and coarse grid, and model grid; (3) ice boundary data – composite charts for 1981 study period and 1981-1983, and maximum, median and minimum; (4) observed wind and wave data – MAST 1980-1983, DOME observations for 1976-1982 and MEDS waverider data for 1981-1982. (NOGAP)

D-207594

Sampling and analysis in the arctic marine benthic environment / Arctic Laboratories Limited. Canada. Environmental Protection Service [Sponsor]. Canada. Indian and Northern Affairs Canada [Sponsor].
[S.l.] : Arctic Laboratories Ltd., 1985.
2 v. (xxi, 511 ; xiv, 257 p.) : ill. ; 28 cm.
(NOGAP project no. A.20 : Hydrocarbon activities : Marine research and management)
(NOGAP project no. C.03 : Point source impact monitoring techniques – marine benthic environment)
Appendices.
References.
Contents: Volume I. Review of methods. – Volume II. Guide to practice.
Document not seen by ASTIS. Citation from NOGAP.
OORD, ACU

This report is a guide for managers and planners involved in the collection and analysis of environmental data from marine sediments in arctic regions. Volume I ... provides an overview of available methods and serves as a background document to the second volume, is organized into three sections. ... This review is not exhaustive; rather, it focuses on methods in current use and relatively new methods which appear to offer significant improvements. Volume 2 is intended to provide guidance in planning and in choosing appropriate methods for a variety of situations, conditions and objectives. ... Users are referred to other manuals or articles in which detailed procedures are given. (NOGAP)

D-207659

Analysis of satellite digital imagery in support of DFO oceanographic operations in the Beaufort Sea / G.A. Borstad Limited. Borstad, G.A. Canada. Dept. of Fisheries and Oceans [Sponsor].
Sidney, B.C. : G.A. Borstad Ltd., 1985.
7 p. : ill. ; 28 cm.
(NOGAP project no. B.04 : Hydrography, Northwest Passage)
References.
Working draft report.
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

Thermal and broad-band visible imagery from the NOAA 7 satellite was obtained over the southern Beaufort Sea during the months of July, August and September 1984. Digital data were then analyzed to produce maps of sea surface temperature and turbidity. The report describes the methodologies employed, discusses the limitations of satellite imagery and provides a qualitative analysis of the four NOAA 7 AVHRR images obtained as part of the project. (NOGAP)

D-208833

Over-the-ice hydrographic survey for Canadian Hydrographic Service of Arnott Strait, Queen Elizabeth Islands, N.W.T., 1985, final field report / McElhanney Group Ltd. Canada. Dept. of Fisheries and Oceans [Sponsor].
Calgary, Alta. : The McElhanney Group Ltd., 1985.
ii, 27, [32] p. : ill. ; 28 cm. + 2 sheets (100 x 100 cm).
(NOGAP project no. B.04 : Hydrography, Northwest Passage)
Appendices.
Issued with 2 charts 1:40,000.
Document not seen by ASTIS. Citation from NOGAP.
OORD

The purpose of this survey was to improve and update existing data in the Arnott Strait area. The survey was carried out during March and April 1985 and required approximately 13,000 spot soundings on a 200 m grid. This report provides detailed descriptions of the logistics and methodology involved in the survey. It was the first time that a computer and elaborate CRT system were used in this type of survey. The system performed without incident and all potential data were recorded on disk. All facets of the operation went smoothly with accurate data being the final result. (NOGAP)

D-208841

Tidal propagation measurements in Baffin Bay, Lancaster Sound, and Nares Strait / Greisman, P. Grant, S. Blaskovitch, A. van Hardenburg, B. Canadian Hydrographic Service [Sponsor].
Dartmouth, N.S. : Canadian Hydrographic Service, 1986.
viii, 548 p. : ill. ; 28 cm.
(Canadian contractor report of hydrography and ocean sciences, no. 25)
(NOGAP project no. B.04 : Hydrography, Northwest Passage)
Appendices.
References.
Supply and Services Canada Cat. No. FS 97-17/25E.
OORD

The authors deployed twenty-nine tide gauges and five current meters through the sea ice along the east coast of Baffin Island, in Lancaster Sound and in Nares Strait during late February and recovered them in late April of 1985. Most of the instruments collected data of good quality. In addition, the authors report on three tide gauges deployed by the Bedford Institute and in place for over one year. Subsequent harmonic analyses of tidal constituents show that the tides are mainly semi-diurnal in character with ranges up to about 7 m. Tidal currents measured in Nares Strait reached velocities up to 50 cm/s. Cotidal charts constructed using all available data show that the tides enter Baffin Bay from the south through Davis Strait and progress along the eastern shore and around the bay counter clockwise, propagating westward into Lancaster Sound. In Nares Strait, the tides enter from both the south through Smith Sound and from the Lincoln Sea to the north to form a nearly standing wave in Kane Basin. (Au)

D-210439

Evaluation of wave forecasting in the Beaufort Sea / MacDonald, K.A. Canada. Atmospheric Environment Service.
Downsview, Ont. : Atmospheric Environment Service, 1985.
12, [21] p. : ill. ; 28 cm.
(NOGAP project no. C.16 : Beaufort Sea forecasting techniques (sea state forecast model))
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

Wave forecasts for the Beaufort Sea, generated during a four-week period in the summer of 1984 by Esso Resources parametric wind-wave model, have been evaluated. The model is a modified version of the AES parametric wave model and driven by analyzed and forecast wind fields which are prepared subjectively. Model forecasts were verified against visual wave observations and wave-rider data collected at drill site locations and were also compared with subjectively prepared wave forecasts originating from the AES Beaufort Weather and Ice Office (BWIO). ... (Au)

D-292044

Beaufort Sea current measurements, March-August 1987 : Volume I : Beaufort Sea / McCullough, D. Macdonald, R.W. Iseki, K. Carmack, E.C. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, 1988.
v, 42 p. : ill. ; 28 cm.
(Canadian data report of hydrography and ocean sciences, no.

60)
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, BVIEM

As part of the program to determine hydrocarbon pathways and primary productivity of the Mackenzie Shelf, four subsurface moorings were deployed, comprised of a pair of current meters and a sequential sediment trap, along the 200 meter contour of the Beaufort Sea. The measurements are summarized in the report as time – series plots, at fixed depths, of temperature, salinity current speed, current direction and light transmission. (NOGAP)

D-292052

Physical data collected in the Beaufort Sea, September 1986 / Cuypers, L.E. Blaskovich, A.W. Carmack, E.C. Macdonald, R.W. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, 1988.
v, 149 p. : ill. : 28 cm.
(Canadian data report of hydrography and ocean sciences, no. 59)
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Appendix.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, BVIEM

This study reports on a cruise carried out in September 1986 to determine hydrocarbon pathways and primary productivity of the Mackenzie Shelf. Supporting physical oceanographic data, including temperature, salinity, light transmission and attenuation, density, departure from freezing point, and dynamic height are reported. (NOGAP)

D-292060

Data report : NOGAP B.6 : Beaufort Sea oceanography, September 1986 / Macdonald, R.W. Iseki, K. Carmack, E.C. Macdonald, D.M. O'Brien, M.C. McLaughlin, F.A. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, 1988.
v, 68 p. : ill. ; 28 cm.
(Canadian data report of hydrography and ocean sciences, no. 58)
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, BVIEM

A cruise to the Beaufort Sea was carried out in September 1986. Reported here are the supporting geochemical measurements, including salinity, temperature, nutrients, oxygen isotopes, chlorophyll a, total suspended solids, particulate organic carbon and nitrogen, and bacterial enumeration. (NOGAP)

D-292117

The distribution of nutrients in the southeastern Beaufort Sea : implications for water circulation and primary production / Institute of Ocean Sciences, Patricia Bay. Macdonald, R.W. Wong, C.S. Scokam Oceanography Limited. Erikson, P. Canada. Dept. of Fisheries and Oceans [Sponsor].
(Journal of geophysical research, v. 92, no. C 3, Mar. 15, 1987, p.2939-2952, ill.)
(NOGAP project no. B.06 : Beaufort Sea oceanography)
References.
Document not seen by ASTIS. Citation from NOGAP.
ACU, OORD, BVIEM

Hydrographic data collected above the shelf and slope in the southeastern Beaufort Sea show marked contrast in nutrients, temperature, salinity and oxygen between August 1974, a year when ice remained close to shore, and August 1975, a year with open water. The near-surface properties were dominated by river inputs, biological activity, and the ice regime. Below the winter-mixed zone, properties are similar to elsewhere in the Arctic Ocean. Upwelling likely results from interaction of coastal circulation with topography. Productivity estimates are included. (NOGAP)

D-292273

Forecasting Beaufort Sea wind waves by momentum balance method : further hindcast studies / MacLaren Plansearch Limited. Canada. Atmospheric Environment Service [Sponsor].
Halifax, N.S. : MacLaren Plansearch Limited, 1987.
iv, [115] p. : ill. ; 28 cm.
(NOGAP project no. C.16 : Beaufort Sea forecasting techniques (sea state forecast model))
Final report.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, OTM

The authors describe the development of a wave forecast model for the Beaufort Sea based on transformation of the Great Lakes Environmental Research Laboratory model (GLERL) into the Beaufort Sea Wave Model, Version 2 (BSWM2). An extensive model evaluation was conducted by compiling error statistics on performance based on a long period and several short period storm events simulations. The BSWM2 has provided encouraging results and will be capable of being used to provide Beaufort wave forecasts provided recommendations on application are addressed. (NOGAP)

D-292648

Distribution of particulate matter in the southeastern Beaufort Sea in late summer / Iseki, K. Macdonald, R. Carmack, E. Canada. Dept. of Fisheries and Oceans [Sponsor].
(NIPR symposium on polar biology, no. 1, 1987, p. 35-46, ill.)
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Reprint.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, BVIEM

Forty-one stations were established for measurements of suspended particulate matter (SPM), chlorophyll-a (chl-a), and particulate organic carbon (POC) in the southeastern Beaufort Sea in September 1986. Preliminary results indicate that both the Mackenzie River and sediments in the nearshore are major particulate sources to the surface layer of the inner shelf. Compared to the Arctic Ocean, water over the Mackenzie Shelf has POC concentrations almost an order of magnitude higher throughout the water column. This is probably a result of organic particles added to the surface layer by river input and phytoplankton production with subsequent settling into deeper water during the open-water season. (NOGAP)

D-308420

Report on the "computer-based analysis of digital bathymetric data" : Beaufort Sea / Challenger Surveys & Services Ltd. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Edmonton, Alta. : Challenger Surveys & Services Ltd., 1988.
vi, 148 leaves : ill. ; 29 x 45 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
OORD, NWYIN, ACU

The report describes the analysis of selected bathymetric features on the Yukon Shelf and in the Erksak borrow area of the southern Beaufort Sea. Several seabed bathymetric anomalies that could potentially contain granular resources were identified on small scale three-dimensional mesh perspectives of each of the two main study areas. Using subsets of the main digital terrain model, more detailed analysis of the individual features was then undertaken. For each feature, a series of detailed mesh perspective, profile and spot bathymetry plots are presented. Comments on other bathymetric data analysis techniques, such as the removal of regional slope, and on the likelihood, based on their morphology, of the features containing granular materials are also included. The report concludes that computer-based analysis of bathymetric data can be very useful in granular resource identification and evaluation when used directly in conjunction with geological and geophysical data. It recommends that the mesh generating software be implemented on microcomputers so that geophysical and geological data interpreters are able to make use of available digital bathymetric data and to view identified features from any perspective. (NOGAP)

D-308595

A study of the occurrence of strudel scours in the Canadian Beaufort Sea / Pilkington and Associates. P.F.L. Arctic and Offshore Technology Ltd. Canada. Supply and Services Canada [Sponsor].
S.L. : [Supply and Services Canada, 198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.

In the spring the rivers along the coast of the Canadian and US Beaufort Sea rise and, because the ice near shore extends down to the seabed, the river water floods over the ice forming a layer of water up to 90 cm deep. The water finds holes in the ice (seal holes or cracks) and drains off the ice through these holes forming a vortex or "strudel" which penetrates the water column and scours into the sea floor forming "strudel scours". Strudel scours off the Alaska coast can be over 25 m diameter and 6 m deep, thus a strudel scour below a pipeline could cause a serious foundation stability problem. Strudel scours have been found off the Alaskan coast but never in the Mackenzie Bay area of the Canadian Beaufort Sea, although one was found in Phillips Bay. This study indicates that most of the elements needed to form strudel scours exist in the Mackenzie Bay from Shallow Bay to North Point, i.e., grounded ice near shore, flooding of the ice in May, soft seabed sediments, etc. ... In summary we cannot see why there would not be strudels and strudel scours in the Mackenzie Bay area. ... Strudel scouring would also be expected in Liverpool Bay by the Anderson and Mason rivers and have already been observed in Phillips Bay. These areas are of far less industrial importance than the Mackenzie Bay at this time. (Au)

D-308609

Beaufort Sea coastal sediment study (continuation) : Evaluation of inshore wave climate and coastal sediment transport prediction techniques at King Point, Yukon / Keith Philpott Consulting Limited. Pinchin, B.M. Nairn, R.B. Canada. Geological Survey [Sponsor].
Toronto : Keith Philpott Consulting Limited, 1987.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

This study was intended to evaluate a series of coastal processes estimation techniques using field data measured at King Point, Yukon Territories during an earlier study by Dobrocky Seatech Ltd. The techniques and phenomena to be considered were parametric wave hindcasting, spectral wave refraction, wave generated alongshore currents and alongshore sediment transport, and surge induced coastal profile adjustment. The measured data from the earlier study were not of sufficient quality to enable the study to be conducted as thoroughly as intended. However, it was possible to examine the wave hindcasting process in detail over a moderate four day storm, improving the understanding of wave generation at King Point. Different methods of predicting bottom roughness and its influence on alongshore currents and alongshore sediment transport were also investigated but there was not sufficient data to determine the best method. Profile response due to onshore-offshore sediment transport could not be evaluated with the available data. The effect of a coastal structure at King Point was evaluated in a separate report which is also bound in this cover. (Au)

D-308617

Current and directional wave measurements in the Beaufort Sea coastal zone, August – September, 1987 / Arctic Sciences Limited. Fissel, D.B. Byrne, O.J. Atlantic Geoscience Centre [Sponsor].
Dartmouth, N.S. : Arctic Sciences Ltd., 1988.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

An extensive set of current and directional wave data were collected within 700 m of the Beaufort Sea coastline over a 21 day period. During this period, a combination of five significant wind events and comparatively large open water fetch resulted in substantial wave activity within the coastal zone. The wave events had a significant wave height of 0.6 to 1.3 and peak periods of 6.5 to 9.8 seconds. Large wave orbital velocities were measured during wind events, with typical amplitudes of 0.2 to 0.4 m/s and peak values of up to 1.3 m/s. The wind-driven alongshore currents were generally low amplitude (up to 0.35 m/s) and not correlated to wind and wave activity. Peak current fluctuation amplitudes greatly exceeded the alongshore current by a factor ranging from 3 to 10. (NOGAP)

D-309397

Oceanographic data collected from the Henry Larsen in the Beaufort Sea, August-September 1990 / Macdonald, R.W. Carmack, E.C. McLaughlin, F.A. Sieberg, D. O'Brien, M.C. Paton, D. Pearson, R. Liangfeng, Y. Gobeil, C.
Sidney, B.C. : Institute of Ocean Sciences, 1991.
v, 142 p. : ill. (1 col.), maps ; 28 cm.
(Canadian data report of hydrography and ocean sciences, no. 97)
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Appendices.
References.
ACU

A cruise to the southern Beaufort Sea was carried out from the Henry Larsen in August-September, 1990. Here we report the bottle data for measurements of salinity, temperature, nutrients (silicate, phosphate and nitrate), dissolved oxygen and chlorophyll a determinations, and the CTD data. (Au)

D-309427

Seasonal salinity, temperature and density data for Tuktoyaktuk Harbour and Mason Bay, N.W.T., 1980 to 1988 / Hopky, G.E. Chiperzak, D.B. Lawrence, M.J. de March, L. Freshwater Institute (Canada).
Winnipeg, Man. : Freshwater Institute (Canada), 1990.

v, 231 p. : ill., maps ; 28 cm.
(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)
(Canadian data report of fisheries and aquatic sciences, no. 801)
Appendices.
References.
This is the 48th Data Report from the Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, Winnipeg.
MWFW, ACU

This report contains seasonal salinity, temperature and density (CTD) data collected from 1980 to 1988 in two embayments – Tuktoyaktuk Harbour and Mason Bay – along the south east Beaufort Sea coast. Sampling during the ice cover period was usually conducted in March. Sampling was conducted more frequently throughout the open water period of June to September, but only in Tuktoyaktuk Harbour. Ice thickness and secchi depth values are also reported. (Au)

D-309451
NOGAP B.6 : volume 2 : Physical data collected in the Beaufort Sea, March-June 1987 / Macdonald, D.M. Cuypers, L.E. McCullough, D. Carmack, E. Macdonald, R.W. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, 1988.
v, 157 p. : ill., maps ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Canadian data report of hydrography and ocean sciences, no. 60)
Appendix.
References.
OORD, BVIEM, YWA

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon and primary productivity of the waters overlying the Beaufort Shelf, we measured water properties (biological, chemical and physical) on a transect out from Tuktoyaktuk to the shelf break. These measurements were made from early spring (March) through to breakup (June). We report here the supporting physical oceanographic data, including temperature, salinity, light transmission and attenuation, density ... departure from freezing point, and dynamic height. Additional physical measurements were made in the near-shore zone to investigate the Mackenzie plume structure under ice; these data are also included here. (Au)

D-309460
NOGAP B.6 : volume 4 : Chemical data collected in the Beaufort Sea, summer, 1987 / Macdonald, R.W. Iseki, K. O'Brien, M.C. McLaughlin, F.A. McCullough, D. Macdonald, D.M. Carmack, E.C. Adams, H. Yunker, M. Miskulin, G. Buckingham, S. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1988.
v, 103 p. : ill., maps ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Canadian data report of hydrography and ocean sciences, no. 60)
Appendices.
References.
BVIEM, OORD, YWA

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Mackenzie Shelf, we measured water properties (biological, chemical and physical) on several transects extending from inshore waters to the shelf break, and one deep station 3500 MO in the southwestern Canada Basin. The samples were collected from the C.S.C. John P. Tully during July – September, 1987. We report here the chemical measurements made on bottle samples; these include salinity, temperature, dissolved oxygen, phosphate, nitrate, reactive silicate, chlorophyll a, total suspended solids, and particulate organic carbon and nitrogen. (Au)

D-309478
NOGAP B.6 : volume 5 : Chemical data collected in the Beaufort Sea and Mackenzie River Delta, March-July 1987 / Macdonald, R.W. Iseki, K. O'Brien, M.C. McLaughlin, F.A. McCullough, D. Macdonald, D.M. Carmack, E.C. Yunker, M. Buckingham, S. Miskulin, G. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1988.
v, 55 p. : ill. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Canadian data report of hydrography and ocean sciences, no. 60)
Appendices.
References.
OORD, BVIEM, YWA

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Mackenzie Shelf, we measured water properties (biological, chemical and physical) on a transect out from Tuktoyaktuk to the shelf break. These measurements were made from early spring (March 1987) through to breakup (May 1987). We report here the chemical measurements made on water samples including salinity, dissolved oxygen, phosphate, nitrate, reactive silicate, chlorophyll a, total suspended solids, particulate organic carbon and nitrogen. Also included are the chemical measurements made on pumped samples collected during 2 trips to the Mackenzie River Delta in June and July, 1987. (Au)

D-309486
NOGAP B.6 : volume 6 : Physical data collected in the Beaufort Sea, summer, 1987 / Carmack, E. Papadakis, J.E. Macdonald, D.M. Macdonald, R.W. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1989.
v, 219 p. : ill. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Canadian data report of hydrography and ocean sciences, no. 60)
Appendices.
References.
BVIEM, YWA

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Beaufort Shelf, we measured water properties (biological, chemical and physical) across the shelf. These measurements were made during summer and complete a time series commencing in March, 1987. We report here the supporting physical oceanographic data, including temperature, salinity, light transmission and attenuation, density ... departure from freezing point, and dynamic height. (Au)

D-309494
NOGAP B.6 : volume 7 : Hydrocarbon determinations : Mackenzie River and Beaufort Sea shoreline peat samples / Yunker, M.B. McLaughlin, F.A. Fowler, B.R. Smyth, T.A. Cretney, W.J. Macdonald, R.W. McCullough, D. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1990.
vi, 81 p. : ill., 1 map ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Canadian data report of hydrography and ocean sciences, no.

60)
Appendices.
References.
BVIEM, YWA, OORD, ACU

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Mackenzie Shelf, we collected hydrocarbon samples in the Mackenzie Delta, from the Beaufort Sea coast and from repeat sampling of several transects extending from inshore waters to the shelf break. This report describes in detail the methods used for the collection and analysis of hydrocarbon samples from the water, shoreline, sediment and atmosphere. It also provides complete results for the analysis of samples from the Mackenzie River Delta and the Beaufort Sea shoreline. (Au)

D-309508

Oceanographic data collected from the Sir John Franklin in the Beaufort Sea, September 1989 / Macdonald, R.W. Carmack, E.C. O'Brien, M.C. McLaughlin, F.A. Minkley, B. Berger-North, K. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1990.
v, 100 p. : ill. (some col.) ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Canadian data report of hydrography and ocean sciences, no. 80)
Appendices.
References.
OORD, BVIEM, YWA

A cruise to the Southern Beaufort Sea was carried out from the CCGS Sir John Franklin in August – September, 1989. Here we report the bottle data including salinity, temperature, nutrients (silicate, phosphate and nitrate), dissolved oxygen and chlorophyll a determinations, and the CTD data. (Au)

D-309516

Sediment-storm interaction study : final report : NOGAP B.6 / Seaconsult Marine Research Ltd. Hodgins, D.O. Institute of Ocean Sciences, Patricia Bay [Sponsor].
Vancouver, B.C. : Seaconsult Marine Research Ltd., 1988.
vi, 94 leaves : ill., maps ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Cover title.
Appendices.
References.
BVIEM, OORD

As part of the 1987 NOGAP B.6 program an instrument was developed to monitor storm-induced sediment resuspension and transport, together with synchronous changes in porewater pressure in surficial sediments. ... The purpose of this report is to document the instrumentation deployed at each site, discuss the calibration of the sensors, to present and discuss the measurements, and to examine models for predicting suspended sediment concentration distributions and sediment transport. (Au)

D-309524

Composition and modification of water masses in the Mackenzie shelf estuary / Macdonald, R.W. Carmack, E.C. McLaughlin, F.A. Iseki, K. Macdonald, D.M. O'Brien, M.C. Institute of Ocean Sciences, Patricia Bay.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Journal of geophysical research, v. 94, no. C12, Dec. 15, 1989, p.18057-18070, 1 leaf of plates, ill. (1 col.), 1 map)
References.
Contains a coloured plate on page 18,247.
BVIEM, OORD, ACU

The distribution of delta 18 O, salinity, temperature, and nutrients have been used to quantify water sources to the Mackenzie shelf in the Beaufort Sea. Comparison of water mass analyses with satellite imagery confirms that the meteoric (runoff) water is associated with the Mackenzie plume. The seasonally variable surface layer for the shelf is viewed as cycling between a "reverse estuary" in winter, when the polar mixed layer (PML) is formed, and a positive estuary in summer when the shelf waters respond to freshwater inputs (runoff and ice melt). We infer a standing stock of 3.7 m fresh water at the end of summer 1986, of which 30% owes its origin to the melting of sea ice; our data coupled with river flow imply a freshwater flushing time for the Mackenzie shelf at about 150 days. To re-form the PML during winter requires the removal of this seasonal fresh water through the combined processes of flushing and ice formation: once this fresh water has been removed, continued ice growth can produce "new" brine which would be observed as a deeper and saltier PML from the previous year. A simple geochemical model shows that autumn conditions (freshwater accumulation) and the rate of flushing are important controls on the potential of the shelf to produce "new" brine and that winter runoff, were it to distribute evenly across the shelf, is sufficient to inhibit brine production. (Au)

D-309532

Water mass structure and boundaries in the Mackenzie shelf estuary / Carmack, E.C. Macdonald, R.W. Papadakis, J.E. Institute of Ocean Sciences, Patricia Bay.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Journal of geophysical research, v. 94, no. C12, Dec. 15, 1989, p.18043-18055, 1 leaf of plates, ill. (1 col.), 1 map)
References.
Contains a coloured plate on page 18,245.
BVIEM, OORD, ACU

The Mackenzie shelf is a broad, estuarine region bordering the southeastern Beaufort Sea in the Arctic Ocean. Its fields of temperature and salinity result from the modification of offshore water masses by river inflow, ice melting and freezing, solar insolation, and air-sea exchange. We here relate water masses resident on the Mackenzie shelf to the large-scale oceanography of the Arctic mediterranean. The summertime exchange between the shelf and open ocean is largely confined to waters lying above the main halocline (S<32.2 psu), thus excluding underlying offshore waters from the nutrient maximum layer (S=33.1 psu) and Atlantic layer (S>34.2 psu). Cross-shelf property distributions show that individual water masses maintain their structural identity (i.e. core properties and buoyancy frequency) as they move across the shelf and participate in the estuarine circulation. Shelf waters are strongly influenced by river inflow; however, the concept of a single "plume" issuing from the incoming river and forming a strictly two-layered structure over uniform shelf water is misleading, since a variety of temperature, salinity, and turbidity fronts co-exist on the shelf at any given time. (Au)

D-309540

Geochemistry and fluxes of hydrocarbons to the Beaufort Sea shelf : a multivariate comparison of fluvial inputs and coastal erosion of peat using principal components analysis / Yunker, M.B. Macdonald, R.W. Fowler, B.R. Cretney, W.J. Dallimore, S.R. McLaughlin, F.A. Institute of Ocean Sciences, Patricia Bay.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Geochimica et cosmochimica acta, v. 55, no. 1, Jan. 1991, p. 255-273, ill., 1 map)
References.
ACU

The allochthonous inputs of hydrocarbon to the Canadian Beaufort Shelf were studied by applying principal components analysis (PCA) to well-validated and rigorously blank-corrected samples. Incorporation of a wide range of perdeuterated n-alkanes and PAH into the analysis

scheme ensured that only reliably quantified variables were used to interpret the hydrocarbon geochemistry. Application of PCA to Mackenzie River samples demonstrated a homogeneous system, from which we infer coupling or equilibrium between the river articulate hydrocarbons and the dissolved fraction. Particulate (particle size >0.7 micro meters) hydrocarbon flux from the Mackenzie River is by far the most important terrestrially derived source of hydrocarbons to the Beaufort Sea. The Mackenzie River particulates have a distinct n-alkane signature which can be used to identify the riverine influence on the hydrocarbon geochemistry of the Beaufort Sea shelf. Based on one year's data, the flux of total alkanes is 440 +-94 tonne/a, and PAH is 49 +-8 tonne/a (uncertainties are one standard deviation of the sampling and analytical variation). The particulate flux exceeds the accompanying dissolved hydrocarbon flux by two orders of magnitude and has a strong seasonal cycle: winter contributes less than an estimated 0.6% of total annual flux. Deltaic silt from the western Mackenzie delta and the smaller amounts of detritus from coastal erosion of peat are minor hydrocarbon sources and contribute, in total, less than 10% to the budget for most alkanes. An important exception, with regard to shelf geochemistry, is the significant quantity of peat-derived higher plant n-alkanes. (Au)

D-309575

Wave hindcasting for extreme wave analysis in the Beaufort Sea : NOGAP B.8 : final report / Glenn, G. Canada. Dept. of Fisheries and Oceans.
[S.l.] : Canada. Dept. of Fisheries and Oceans, 1988.
[119] leaves : ill. ; 28 cm.
(NOGAP project no. B.08 : Beaufort Sea waves)
Appendices.
References.
OORD, BVIEM

This report is a study of the Beaufort Sea wave climate for the Northern Oil and Gas Action Program. Extreme waves were estimated using modeled wave data and the joint probabilities of storm and ice conditions. A shallow water wave model was developed. This was used to hindcast a set of past Beaufort storms. Scientific errors were estimated for each stage of these analyses. (Au)

D-309605

Beaufort Sea wave hindcast / Seaconsult Marine Research Ltd. Canada. Marine Environmental Data Service [Sponsor].
Vancouver, B.C. : Seaconsult Marine Research Ltd., 1988.
ca. 200 p. : ill., maps : 28 cm.
(NOGAP project no. B.08 : Beaufort Sea waves)
Appendices.
References.
OORD

This report analyzes the results of various wave models designed to predict wave conditions in the Beaufort Sea under a range of storm and other conditions. (ASTIS)

D-309745

NOGAP B.6 : volume 3 : Beaufort Sea current measurements, Sept. 1987-March 1988 / McCullough, D. Macdonald, R.W. Iseki, K. Carmack, E. Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1988.
37 p. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Canadian data report of hydrography and ocean sciences, no. 60)
BVIEM, YWA, ACU, OORD

Four subsurface, tautline moorings were deployed in the summer of 1987 along the 200 m contour in the Beaufort Sea. Each mooring comprised a pair of current meters and a sequential sediment trap. One current meter was located as close to the surface as predicted ice keel depths would allow and the other was 50 m above the bottom in close association with the sediment trap. The moorings were recovered from the ice in March 1988. The measurements are summarized in this report. (Au)

D-309753

Measurement of natural trace dissolved hydrocarbons by in situ column extraction : an intercomparison of two adsorption resins / Yunker, M.B. McLaughlin, F.A. Macdonald, R.W. Cretney, W.J. Fowler, B.R. Smyth, T.A. Canada. Dept. of Fisheries and Oceans.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Analytical chemistry, v. 61, 1989, p.1333-1343)
Document not seen by ASTIS. Citation from NOGAP.
ACU

Chromosorb T and XAD-2 resins are compared for the in situ extraction of alkane and polycyclic aromatic hydrocarbons (PAHs) from fresh- and seawater. In column efficiency experiments, Chromosorb T yielded higher recoveries than XAD-2 for n-alkanes at 3 and 0.6 ng/L concentrations per component. Chromosorb T columns gave good recoveries for PAHs of three and more rings (0.4 ng/L per component) and XAD-2 for PAHs of four and more rings (0.06 ng/L per component). Lower molecular weight PAHs were recovered poorly by Chromosorb T and contaminated by XAD-2. Principal component analysis (PCA) discriminated well between Chromosorb T and XAD-2 dissolved hydrocarbon in situ samples and their respective blanks. The PCA models could also distinguish between the groups of samples collected with each resin. Between-resin difference was more important than sampling location for hydrocarbon composition; this difference in resin adsorption characteristics shows up dramatically in the mean sample and blank plots for the hydrocarbons. The majority of blank-corrected XAD-2 alkane concentrations were below the limit of detection. In contrast, the majority of the alkanes below triacontane were quantifiable for the samples on Chromosorb T. PAHs in the phenanthrene to chrysene range gave comparable results for the two resins. The Chromosorb T in situ methodology provides the first dissolved hydrocarbon measurements that are unquestionably above the measured mean blank. With this technique individual alkanes and PAHs at pg/L concentrations in natural waters can be quantified. (NOGAP)

D-309761

The role of large-scale under-ice topography in separating estuary and ocean on an arctic shelf / Macdonald, R.W. Carmack, E.C. Canada. Dept. of Fisheries and Oceans.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Atmosphere-ocean, v. 29, no. 1, 1991, p. 37-53)
Document not seen by ASTIS. Citation from NOGAP.

The Mackenzie Shelf in the Canadian Beaufort Sea receives large amounts of freshwater runoff in winter and, yet, it also produces ventilating water masses by brine rejection from growing ice. We examine physical and chemical data to see how these contradictory processes can occur juxtaposed on the shelf. Measurements of salinity and delta 18 O both from ice cores and the water column are used to infer the separation into two convective regimes due to the under-ice topography of the system of large pressure ridges that forms at the boundary between landfast ice and pack ice. Outside this ridge system the ice cover is subject to frequent openings due to offshore ice motion. The inner regime is thus dominated by the impoundment of Mackenzie River water, whereas the outer regime is subject to brine enhancement. This paper compares freezing processes and system evolution for these two regimes in winter. (NOGAP)

D-309770

Organic carbon and colloids in the Mackenzie River and Beaufort Sea / Whitehouse, B.G. Macdonald, R.W. Iseki, K. Yunker, M.B. McLaughlin, F.A. Canada. Dept. of Fisheries and Oceans.

(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Marine chemistry, v. 26, 1989, p. 371-378)
Document not seen by ASTIS. Citation from NOGAP.

Photo-oxidation analysis of colloidal organic material from the Mackenzie River and Beaufort Sea indicates that organic colloids in riverine, brackish, and marine waters match organic particulate material in magnitude and distribution. Comparison with data obtained by CHN analysis of organic colloids >0.2 micro meters in size indicates that most of the riverine organic colloidal material resides in the <0.2 micro meters to low nm size range. The colloidal fraction is significant in the Mackenzie River, but does not play a major role in the mass balance of total organic carbon in the Mackenzie River and Beaufort Sea. We recognize recent controversy regarding the analysis of marine dissolved organic carbon and suggest that such controversy may not apply to data obtained from freshwater environments. (NOGAP)

D-309788

Organic carbon and fl hydrocarbons in the colloidal fraction : analysis of data obtained from the Mackenzie River and Beaufort Sea : final report / Whitehouse, B.G. Institute of Ocean Sciences, Patricia Bay.
Halifax, N.S. : Dalhousie University, 1988.
iii, [75] leaves : ill. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Cover title.
Appendices.
References.
BVIEM, OORD

The purpose of this report is to present and synthesize available organic colloid data from the Mackenzie River and Beaufort Sea and relevant physical oceanographic data. (Au)

See also: A-206814, B-207110, B-207330, B-207535, B-207578, B-207667, B-207683, B-207705, B-308439, B-308668, B-308676, B-308684, B-308730, B-308757, B-308803, B-309664, G-308579, G-308587, G-308625, H-292095, I-192791, I-207136, I-208817, I-211362, I-291889, Q-207373, Q-210382, X-190314.

E – METEOROLOGY AND CLIMATOLOGY

E-207500

Evaluation of existing climatologies for the Beaufort Sea / MEP Company. Canada. Atmospheric Environment Service [Sponsor].
Downsview, Ont. : Atmospheric Environment Service, 1986.
v, 88 p. ; 28 cm.
(Canadian Climate Centre report, no. 86- 13)
(NOGAP project no. C.18 : Beaufort wind climatologies)
Final report.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, OTM

Over the past 10 to 15 years a variety of climate studies have been done for the Beaufort Sea area by both industry and government. This report provides a review of as many of these studies as possible to document the current extent of knowledge, identify and assess any limitations of previous studies, and identify priorities for future research. The report is addressed in particular to the needs of the oil and gas industry. (Au)

E-207519

Assessment of Canadian arctic wind data sets / Environmental Climate Services. Olson, R. Canada. Atmospheric Environment Service [Sponsor].
Downsview, Ont. : Atmospheric Environment Service, 1986.
vii, 58 p. : ill. ; 28 cm.
(Canadian Climate Centre report, no. 86- 9)
(NOGAP project no. C.18 : Beaufort wind climatologies)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, OTM

A knowledge of oceanic wind fields is a principal requirement for many meteorological and oceanographic applications. In arctic Canada coastal and offshore Ships-of-Opportunity wind data are sparse and generally have short durations. As an attempt to fill the data gap, hindcast computer winds have been generated using readily available synoptic atmospheric pressure gradients. The purpose of this study is to provide an analysis of the quality of these computer generated and Ships-of-Opportunity winds. These data have been compared relative to both Atmospheric Environment Service coastal stations and geostrophic winds that were extracted from the pressure fields of synoptic weather maps. There are large variations in the wind field between some data sets but, between others, the differences are not significant. Not only does this occur within subregions but also between adjacent sites. Thus, none of the data sets are adequate for all applications. Caution must be exercised when choosing a data set for a particular application for a certain area. (Au)

E-210447

NOGAP arctic meteorological tower / Fanaki, F. Martin, B. Markes, J. Canada. Atmospheric Environment Service.
Downsview, Ont. : Atmospheric Environment Service, [1986].
ii, 54 p. : ill. ; 28 cm.
(NOGAP project no. C.19 : Beaufort Sea atmospheric dispersion characteristics)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

Six temperature, wind speed and wind direction sensors were installed at various heights on the CBC 100 metre television tower in Inuvik, N.W.T. In addition, a HUMICAP, to measure the relative humidity at 2.5 m and 15 m levels, and two Eppley pyranometers, to measure Albedo at 1 m height, were installed. The purpose of this project is to gather detailed information to form a data base of atmospheric parameters. The data were averaged every 10 minutes and stored on tape at the AS6, AES computer ready for use upon command. This report describes in detail the site, tower and the installation of the sensors. The characteristics of the sensors are also examined. A sample of the collected data is presented in this report. (Au)

E-210455

NOGAP project C.19 winter field study : February 1985 : Inuvik, N.W.T. / Fanaki, F. Martin, B. Markes, J. Canada. Atmospheric Environment Service.
Downsview, Ont. : Atmospheric Environment Service, 1986.
2 v. (ii, 62; 293 p.) : ill. ; 28 cm.
(NOGAP project no. C.19 : Beaufort Sea atmospheric dispersion characteristics)
Contents: Volume 1: Report. – Volume 2: Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

This field study of February 1985 provides data for an initial attempt to determine the pollution potential of the NOGAP hydrocarbon study area for winter seasons. A variety of measurements were made during the study, including vertical soundings of the atmosphere for wind and temperature profiles, plume rise and dispersion from a power plant in Inuvik, measurements of particulate concentration and measurements of mixing heights. The study was successful in verifying the Inuvik tower data and in identifying the features of the industrial plume and its dispersion characteristics. The predictive capability of Briggs' plume rise formula was assessed and comparison of the horizontal dispersion coefficient with the Pasquill-Gifford model was made. Observation of the ventilation coefficient indicated high pollution potential at least during the study period. Concentration and size distribution of certain particulates are the same characteristics as those found in unpolluted Arctic air. (Au)

E-292281

Beaufort Sea specialized data base : report for 1987/88 fiscal AES western region / Canada. Atmospheric Environment Service.

Edmonton, Alta. : Atmospheric Environment Service, 1988.

1 v. (loose-leaf) : ill. ; 28 cm.

(NOGAP project no. C.16 : Beaufort Sea forecasting techniques (sea state forecast model))

Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD, OTM

The main project objective is to increase the climatological data base in the area of the Beaufort Sea and make the results available to those charged with providing meteorological support for offshore exploration activities. This report presents an overview of the network including a description of the meteorological platform. The appendices contain information on individual stations including monthly statistics on wind, temperature and direction. (NOGAP)

E-292290

Beaufort Sea specialized data base / Canada. Atmospheric Environment Service. Parker, N.

Edmonton, Alta. : AES Western Region, 1987.

iii, 11 p. : ill. ; 28 cm.

(NOGAP project no. C.16 : Beaufort Sea forecasting techniques (sea state forecast model))

Document not seen by ASTIS. Citation from NOGAP.

OORD, OTM

The data provided by this three year study will aid in the development of improved climatologies and support the provision of real time weather warnings and advisories for the Beaufort Delta exploration and production area. This report describes the network as of March 1987. Logistics of establishment, data collection, processing and archiving, along with proposed station modifications are discussed. (NOGAP)

E-292303

Analysis of pressurized air sample from Inuvik, N.W.T., for ambient hydrocarbons by gas chromatography – flame ionization detection (GC-FID) / Conrad Scientific Corporation. Brice, K.A. Canada. Atmospheric Environment Service [Sponsor].

Calgary, Alta. ; Ottawa ; Toronto : Concord Scientific Corporation, 1986.

[17] p. : ill. ; 28 cm.

(NOGAP project no. C.19 : Beaufort Sea atmospheric dispersion characteristics)

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, OTM

The Atmospheric Environment Service (AES) conducted a limited, exploratory study in December 1985 of the ambient light hydrocarbon composition in and around Inuvik, N.W.T. A series of stainless steel sampling canisters were pressurized with samples of ambient air using an inert pump, and stored for subsequent determination for C2-C5 speciated hydrocarbons by gas chromatography – flame ionization detection (GC-FID). This report addresses the experimental aspects of canister sampling and analytical methods employed, and presents the calculated ambient mixing ratios for the dominant hydrocarbon components. (NOGAP)

E-292311

NOGAP meteorological tower data analysis / Fanaki, F. Deary, J. Martin, B. Markes, J. Canada. Atmospheric Environment Service.

Downsview, Ont. : Atmospheric Environment Service, 1987.

88 p. : ill. ; 28 cm.

(NOGAP project no. C.19 : Beaufort Sea atmospheric dispersion characteristics)

Document not seen by ASTIS. Citation from NOGAP.

OORD, OTM

Meteorological data obtained from the CBC tower at Inuvik, N.W.T. have been analyzed to provide a statistical relationship for various meteorological parameters. Using the Marine Statistics Software Package and the Duration Statistics Software Package, developed by the Atmospheric Environment Service, the tower data are analyzed and displayed graphically. The analysis includes wind and temperature statistics and atmospheric stability. Unique air quality features are identified. (NOGAP)

E-292320

Radiation measurements at Inuvik, N.W.T. / Martin, B. Markes, J. Canada. Atmospheric Environment Service.

Downsview, Ont. : Atmospheric Environment Service, 1987.

278 p. ; 28 cm.

(NOGAP project no. C.19 : Beaufort Sea atmospheric dispersion characteristics)

Document not seen by ASTIS. Citation from NOGAP.

OORD, OTM

A report on data collection of radiation measurements. The equipment and method adopted in collecting the measurements is briefly described. The data is presented in table format showing one-hour averaged values of incoming and reflected shortwave radiation and net shortwave radiation. (NOGAP)

E-292338

Summer field study, July 1985 / Fanaki, F. Martin, B. Markes, J. Canada. Atmospheric Environment Service.

Downsview, Ont. : Atmospheric Environment Service, 1987.

2 v. (vi, 60; 238 p.) : ill. (some col.) ; 28 cm.

(NOGAP project no. C.19 : Beaufort Sea atmospheric dispersion characteristics)

Contents: Volume 1. Study and analysis – Volume 2. Data.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, OTM

A short duration field study of pollution potential in the Beaufort Sea area. Coordinated sets of measurements were conducted simultaneously at Inuvik and Tuktoyaktuk, including vertical sounding of the atmosphere for wind and temperature profiles, continuous acoustic sounder measurements, the dispersion of an industrial plume and the measurements of particulate concentration. Volume I describes the study program and analysis. Volume II contains all data collected. (NOGAP)

See also: B-207535, B-207578, B-308684, B-308692, B-309664,

D-207462, D-207489, D-292273, D-308617, D-309575, D-309605, G-292087, I-207136.

F – SNOW, GLACIOLOGY, AND HYDROLOGY

F-208809

Development of methodologies for close interval temperature sensing across a sediment-water surface / Flett Research Ltd. Canada. Dept. of Fisheries and Oceans [Sponsor].
Winnipeg, Man. : Flett Research Ltd., 1985.
2, [3] p. : ill. ; 28 cm.
(NOGAP project no. B.03 : Critical western arctic freshwater habitats)
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

This report describes the following problems encountered in developing methodologies for close interval temperature sensing across the sediment-water interface: heat transfer with electrical conductors; temperature-sensing materials (temperature insensitivity); rapid response time with 0.01 degrees C accuracy; need for continuous operation at a maximum depth of 30 m; and requirement for computer compatible data. Solutions to these problems are presented. (NOGAP)

F-210420

Hydrology information series / Western Ecological Services Ltd. Canada. Inland Waters Directorate [Sponsor]. Canada. Energy, Mines and Resources Canada [Sponsor].
Ottawa : Energy, Mines and Resources Canada, 1985.
12 sheets.
(NOGAP project no. C.10 : Hydrologic mapping data base)
References.
Map sheets of various sizes, printed on both sides.
Copies available from: Canada Map Office, Surveys and Mapping Branch, Energy, Mines and Resources Canada, Ottawa K1A 0E9.
Document not seen by ASTIS. Citation from NOGAP.

Compilation of existing hydrologic data for the Mackenzie River Valley from approximately the Great Bear River northwards to Richards Island. Twelve map sheets ... make up the hydrology Information Series, which summarizes existing information on hydrology, fluvial geomorphology and water quality. ... This map compilation is based on a comprehensive review of available reports, plus examination of unpublished information available from agencies involved in hydrologic data collection. The maps must, however, be regarded as a first approximation because current research and survey programs are generating new information. Key sources of information are identified by author and date in the map legends. (Au)

F-281271

The flux of suspended particulates, petroleum related hydrocarbons, trace metals and nutrients from the Mackenzie River during the winter season : a pilot study of the East Channel / Arctic Laboratories Limited. Erickson, P. Fowler, B. Canada. Northern Environment Directorate [Sponsor].
Ottawa : DIAND, 1987.
xix, 124 p. : ill., maps ; 28 cm.
(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 48)
(NOGAP project no. A.05 : Physical environment : process and impacts)
ISBN 0-662-15639-0.
Appendices.
References.
ACU

Water and suspended particulates were collected through the ice in the East Channel of the Mackenzie River about 30 km upstream from Kittigazuit Bay in April 1985 and early February 1986 to estimate the winter dissolved and particulate fluxes of trace metals, nutrients and petroleum related hydrocarbons to the Beaufort Sea. In February 1986 samples were also collected in the Main, Middle and Reindeer Channels to compare fluxes in the other major channels. Samples were collected using conventional discrete sampling methods as well as a new time- integrating, microprocessor controlled in situ pump. The results [are presented.] ... (Au)

F-292036

Hydrographic survey of Mackenzie River : final field report 1986 / Terra Surveys Ltd. Canada. Dept. of Fisheries and Oceans [Sponsor].
Sidney, B.C. : Terra Surveys Limited, 1986.
32 p. : chart ; 28 cm.
(NOGAP project no. B.05 : Hydrography, Mackenzie River)
Document not seen by ASTIS. Citation from NOGAP.
OORD

A hydrographic survey was carried out to produce navigation charts of the Mackenzie River from Great Slave Lake northward to kilometre 208. The survey was conducted for chart portrayal at a scale of 1:50,000 except around Fort Providence where a scale of 1:25,000 was used. Horizontal control was established to third order specifications using GPS techniques for all sounding control points as well as fixed aid to navigation. Water level and staff gauges were installed to monitor seasonal water level variations. In 1986 TERRA surveyed ten field sheets and in 1987 produced four new Mackenzie River strip charts. (NOGAP)

F-292133

Final report on hydrocarbon pathways in the Mackenzie River, N.W.T. / National Water Research Institute (Canada). Nagy, E. Ongley, E.D. Carey, J.H. Canada Centre for Inland Waters [Sponsor].
Burlington, Ont. : Environment Canada, National Water Research Institute, 1988.
12 p. : ill. ; 28 cm.
(NOGAP project no. C.02 : Criteria for the control and monitoring of petroleum development impacts on the Mackenzie River)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYEEP

A baseline assessment of Mackenzie River water quality is provided by characterizing hydrocarbon chemistry of water and suspended sediments; evaluating the use of water and suspended sediments for hydrocarbon monitoring; and, determining downstream trends in hydrocarbon chemistry. Results indicate presence of n-alkanes and PAH's in sediments and water column throughout the study area. Organic loadings are shown to vary significantly with the seasonal variation of the flow of the river. Methods, techniques and difficulties in water quality assessment are discussed. (NOGAP)

See also: B-308692, B-309664, D-208841, D-309524, D-309540, D-309753, D-309761, D-309770, G-207756, H-210048, I-210277, I-308480, I-308498, I-309559, I-309567, J-309680, Q-210374, Q-292141, Q-292150, Q-292206, X-195499, X-287709, X-308501.

G – ICE – Except Glacier Ice and Ground Ice.

G-207756

St. Lawrence River passive microwave experiments : winter 1985 / Norland Science and Engineering Ltd. Cameron, M. Bjerkelund, C. Lapp, D. Canada. Atmospheric Environment Service [Sponsor].
Ottawa : Atmospheric Environment Service, 1985.
2 v. (xi, 144 p.; various pagings) : ill. ; 28 cm.
(NOGAP project no. E.05 : Studies to assess and develop arctic navigation systems)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

... In preparation for the verification of an airborne passive microwave system with an imaging capability having a much higher resolution than satellite-based systems within the Atmospheric Environment Service (AES), the first of a series of ice research experiments was initiated in 1981 at Grindstone Island, New York ... to obtain a better understanding of freshwater ice passive microwave signatures. Variations of the project were repeated each winter, except for 1983, wherein truthing activities were conducted to correlate SLAR imagery with the ice surface features. This report presents the results of the 1985 experiment conducted between January and March. A 37 GHz passive microwave radiometer was erected on a dock platform overlooking the newly forming ice in December 1984. Data acquisition commenced in mid-January, with three additional data sets collected over February and early March. The data sets consisted of brightness temperature measurements as a function of angle between 0 degrees (nadir) and 90 degrees at a select set of azimuth angles. ... The objectives of the program were revised as follows: (1) to determine the effect of snow cover on microwave signatures as a function of air temperature, snow wetness and snow grain size, if practical, and (2) to determine the effect of open water on passive microwave signatures at various incidence angles. (Au)

G-210331

Lancaster Sound winter ice regime study / Intera Technologies Ltd. Canarctic Shipping Ltd. [Sponsor]. Canada. Transport Canada [Sponsor].
Calgary, Alta. : Intera Technologies Ltd., 1985.
viii, 102 p. : ill. ; 28 cm.
(Transport Canada report, no.TP6696)
(NOGAP project no. E.05 : Studies to assess and develop arctic navigation systems)
References.
Document not seen by ASTIS. Citation from NOGAP.
OOT, OORD

STAR-1 Synthetic Aperture Radar (SAR) and Side-looking Airborne Radar (SLAR) imagery were analysed and the data mapped. Results indicated that from early November onward ice moved easterly out of Lancaster Sound into Baffin Bay. The percentage of old ice in the Sound diminished during the winter and by mid-January only isolated areas indicated old ice concentrations. Glacial ice fragments were primarily interpreted in the landfast ice in Lancaster Sound, with very few in the moving pack ice. The movement of old ice south from Nares Strait had stopped by mid-December; only random floes of old ice, broken free of the landfast ice, travelled south in the generally young ice pack between early January and mid-March. ... Further work is needed to understand both the processes in Lancaster Sound and Baffin-Kane-Nares with regard to small floe distribution and the inflow process of old ice and glacial fragments from Baffin Bay into Lancaster Sound when the winter ice regime changes to summer/fall conditions. (NOGAP)

G-292087

The 1987 seasonal ice cycle in the Beaufort Sea / G.A. Borstad Limited. Borstad, G.A. MacNeill, M.R. Armstrong, L.L. Institute of Ocean Sciences, Patricia Bay [Sponsor].
Sidney, B.C. : G.A. Borstad Associated Ltd., 1988.
iv, 45 p. : ill. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, BVIEM

This study of ice behaviour and concentration in the southeastern Beaufort Sea provides a 1987 time series of behaviour. A series of black and white satellite images were examined for changing ice patterns. The report includes the following: a qualitative description of the seasonal ice cycle; a comparison of 1987 meteorological data from Herschel Island, Pelly Island, and Cape Bathurst with the ice dynamics; a time series of approximate ice coverage data; and, a comparison of ice behaviour in 1987 to other years. (NOGAP)

G-308579

Effect of sea ice on Beaufort Sea coastal processes / Arctec Newfoundland Limited. Atlantic Geoscience Centre [Sponsor].
St. John's, Nfld. : Arctec Newfoundland Ltd., 1987.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

... This study has been conducted to investigate the significance of sea ice for Beaufort Sea shoreline processes and to identify critical information gaps to guide the planning of future research efforts. The study was conducted by reviewing available data on coastal morphology, sediment transport and sea ice to develop conceptual models for shore/ice interaction processes, and developing first approximation numerical estimates of their significance in the Canadian Beaufort. Assessments were then made of their potential significance for coastal development at King Point and North Head. ... At North Head, entrapment of sediment in or on the ice cover are the most likely processes, although it is believed that their effects on coastal development are minor. As the beach slope is very shallow, both ice incursions and wave energy in this environment are limited. It is believed that the predominant effect of sea ice here is to limit the duration of the open water season. At King Point, sea ice is more likely to affect coastal processes as the beach slope is steeper. Thus, ice incursions are more likely. On a local scale ice scour, ice push, and ice override may significantly rework the beach. On a regional scale, ice push has the potential to supply a significant volume of sediment to the littoral zone. Table 1 summarizes the results of the general assessments which were made. Table 2 summarizes the information gaps at present which are considered most critical. Field reconnaissance surveys at break-up and field beach profile surveys are recommended to investigate ice push. Efforts to build up a historical database on sea ice-related shoreline processes should continue. Physical model studies are recommended to assess the effects of specific engineering developments on these processes. (These projects are described in detail in Section 8). (Au)

G-308587

Aerial reconnaissance survey of ice break-up processes in the Canadian Beaufort Sea coastal zone / Dickins (D.F.) Associates Ltd. Atlantic Geoscience Centre [Sponsor].
Vancouver, B.C. : DF Dickins Associates Ltd., 1987.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
The study produced a slide set and a video of the entire

Beaufort Sea coastline.
Document not seen by ASTIS. Citation from NOGAP.
OOG

This report describes a 22 day field program carried out in the Canadian Beaufort Sea from May 31 to June 21, 1987. The field studies concentrated on the documentation of specific features of nearshore ice which play a role in coastal sediment transport in the study area. Regular visits to selected sites were carried out on regional aerial surveys from the US/Canada border to Cape Dalhousie. The study produced a comprehensive slide set together with video coverage of the entire Beaufort Sea coastline. Severe pile-up features, up to 12.5 m in elevation, were surveyed in 4 to 10 m of water off Atkinson Spit, in McKinley Bay, and west of Hershel Island along Nunaluk Spit. Strudel scour features were documented off the Babbage River delta in Phillips Bay. The maximum strudel scour pit depth was 2 m. This is the first known confirmation of strudel scour along the Canadian Beaufort Sea coast. Areas of ice overflow were mapped in the vicinity of Garry and Ellice Islands and off the deltas of the Blow River (Trent Bay), Babbage River, Running River, and Firth River. The landfast ice was unusually smooth throughout the study area. There was no evidence in 1987 of significant ice-sediment interaction at any of the sites of interest for future development (King Point, North Head, Pullen Island, and Toker Point). These observations are not necessarily representative of typical conditions. We recommend carrying out additional surveys to establish the annual variation and extent of ice-sediment reworking at specific sites and to conduct detailed mapping of strudel scour. Follow-up side-scan surveys are required to determine whether severe ice pile-up features cause long lasting scour in the nearshore area inside of the 10 m isobath. NOAA satellite images provide a valuable record of the extent of ice overflooding in previous years. We recommend using these images to relate ice overflooding and river discharge characteristics for particular years. (Au)

G-308625
L'influence de la glace de mer sur l'erosion littorale en mer de Beaufort Canadienne [The effect of sea ice on coastal erosion in the Canadian Beaufort Sea] / Universite de Bretagne Occidentale. Dep. de Geographie. Hequette, A. Canada. Geological Survey [Sponsor].
[S.l. : s.n., 198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Text in French.
Document not seen by ASTIS. Citation from NOGAP.
OOG

The Canadian Beaufort Sea coast consists primarily of unconsolidated cliffs in which segregation ground ice may occur in variable proportions. Although the Beaufort Sea is ice-free during only three months of an average year, the coast is undergoing regional retreat with local erosion rates as high as 10 m/a or more. Coastal retreat can not be explained solely by wave-induced and subaerial processes, but also by sea-ice related processes. The study of the bathymetry changes since 1971 at a site along the southeastern Beaufort Sea coast has revealed significant erosion (up to 1 m) in 12 to 15 m water depths. This deepening of the submarine profile is essentially caused by sea-ice gouging of the seabed as shown by sidescan sonar records. The coastal retreat is partly explained by the erosion of the subaqueous profile by sea ice processes. In opposition to a generally received opinion, sea ice has not only a protective effect on Arctic coasts by restricting wave energy, but also contributes significantly to their erosion. (Au)

See also: A-308714, B-308722, B-308765, B-308811, B-309664, D-207462, D-207489, D-208833, D-308595, D-309427, D-309451, D-309460, D-309478, D-309486, D-309494, D-309575, D-309605, D-309745, D-309761, H-210056, I-183687, I-189294, I-207195, I-207527, I-211370, J-309680, L-207349, L-291846, Q-202908, Q-207438, Q-210382.

H – BOTANY

H-210030
Measuring photosynthetic action spectra of natural phytoplankton populations / Lewis, M.R. Warnock, R.E. Irwin, B. Platt, T. Canada. Dept. of Fisheries and Oceans.
(Journal of phycology, v. 21, 1985, p. 310-315, ill.)
(NOGAP project no. B.09 : Non-summer ecology)
References.
Document not seen by ASTIS. Citation from NOGAP.

The photosynthetic response, defined as the initial slope of the photosynthesis-irradiance curve, was determined spectrally (every 25 nm from 400 to 675 nm; 25 nm half-maximum bandpass) for natural phytoplankton populations from High Arctic, Grand Banks and Sargasso Sea waters, as well as for populations living in the lower margin of sea ice off Newfoundland. All spectra were similar in shape with a maximum at 425-450 nm, a broad shoulder of 550 nm, a valley from 600 to 650 nm and a rise at 675 nm. The error resulting from the use of spectrally averaged initial slope to predict photosynthesis under different optical and fluid dynamical conditions at sea is discussed. (Au)

H-210048
Utility of light-saturation models for estimating marine primary productivity in the field : a comparison with conventional "simulated" in situ methods / Harrison, W.G. Platt, T. Lewis, M.R. Canada. Dept. of Fisheries and Oceans.
(Canadian journal of fisheries and aquatic sciences, v. 42, no. 5, May 1985, p. 864-872, ill.)
(NOGAP project no. B.09 : Non-summer ecology)
References.
Document not seen by ASTIS. Citation from NOGAP.

Primary production rates derived from model photosynthesis-light (P-I) curves and daily solar radiation data were compared with direct measurements using "simulated" in situ incubations in arctic and temperate marine waters. On the average, model estimates were slightly higher in surface waters and significantly lower at the bottom of the euphotic zone (1 percent light level) than were the measured values. This could be partially explained by spectral differences in incubation light sources. However, areal production rates were statistically indistinguishable. Use of P-I models without a photo-inhibition term and incorporating P-I parameters from mixed-layer populations gave the best overall agreement with directly measured production rates. (Au)

H-210056
Photoadaptation of high arctic ice algae / Cota, G.F.
Canada. Dept. of Fisheries and Oceans.
(Nature, v.315, no.6016, May 16, 1985, p. 219-222, ill.)
(NOGAP project no. B.09 : Non-summer ecology)
ACU

In aquatic systems, the layer that is suitable for positive net photosynthesis (the euphotic zone) is usually considered to extend from the surface down to the depth of penetration of 1 percent of the surface irradiance, which corresponds to 15uE sq m/s at solar noon during late summer in open waters in the High Arctic. In polar regions, vernal blooms of epontic algae (unicellular algae associated with the lower interface of sea ice whose photosynthetic characteristics are not well known) develop under conditions where they are only rarely or briefly exposed to light levels exceeding 1-2 percent of that incident at the surface. ... Epontic algae from the Canadian Arctic show unusually high

photosynthetic efficiencies normalized to pigment content, which increase with a decrease in the light levels at which the populations are growing. ... Taken together, the results indicate that epontic algae from the High Arctic can be considered as an obligate shade flora genetically constrained to very low photon fluxes. (Au)

H-292095
Phytoplankton productivity in the Mackenzie Estuary of the Beaufort Sea, 1987 / S. Jasper Consulting. Jasper, S. Canada. Dept. of Fisheries and Oceans [Sponsor].
Vancouver, B.C. : S. Jasper Consulting, 1988.
1 v.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, BVIEM

A phytoplankton productivity study was conducted in the Mackenzie Estuary of the Beaufort Sea from April to September, 1987. An incubator method was used to examine the photosynthesis vs light (P-I) response of phytoplankton throughout the euphotic zone at several stations during the year. A microcomputer program incorporated these (P-I) curves, with chlorophyll data, downwelling and continuous surface irradiances, and produced estimates of productivity. Real productivities were extremely low during the spring (ice-covered) season, reaching maximum levels at the end of July. Dramatic changes were found in the water column production profiles throughout the year. Recommendations are provided for future work. (NOGAP)

H-292109
Phytoplankton species with quantitative data on cell numbers, cell volume and cell carbon from samples collected during September 9-14, 1986 in the Beaufort Sea for the NOGAP project / Acreman, J. Canada. Supply and Services Canada [Sponsor]. Canada. Dept. of Fisheries and Oceans [Sponsor]. Institute of Ocean Sciences, Patricia Bay [Sponsor].
Toronto, Ont. : Judy Acreman, 1987.
38 p. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, BVIEM

Thirty-five samples of phytoplankton were collected in September 1986 from 15 stations in the Beaufort Sea. Samples of approximately 200 ml, preserved with iodine, were analyzed by the author for species content. Of the 35 samples examined, 17 of these were further analyzed to determine cell volumes, from which cell carbon estimates were then made. (NOGAP)

H-292354
Studies of the Environmental Effects of Disturbances in the Subarctic (S.E.E.D.S.) / University of Alberta. Kershaw, G.P. Canada. Dept. of Agriculture [Sponsor]. Canada. Environment Canada [Sponsor].
Edmonton, Alta. University of Alberta, 1987.
45 p. : ill. ; 28 cm.
(NOGAP project no. C.20 : Thermal effect of soil and vegetation disturbance)
Year end report 1986-87.
Appendix.
Reference.
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEEPS

In 1985 a simulated pipeline corridor was installed near Fort Norman, N.W.T. Within it, a deep trench was excavated. Seeding and fertilization rates were replicated on trench segments. Revegetation treatments were designed to provide viable alternative reclamation practices for dealing with disturbances. Performance is assessed providing data applicable to the development of an ecosystem model for the design of future reclamation/rehabilitation programmes. (NOGAP)

See also: D-292052, D-292117, D-309532, I-210277, J-207543, U-309320, X-308501, X-309389.

I - ZOOLOGY

I-181862
Beaufort Environmental Monitoring Project, 1984-85 : final report / ESL Environmental Sciences Limited. LGL Limited, Environmental Research Associates. Environmental and Social Systems Analysts Ltd. Arctic Laboratories Limited. Arctic Sciences Limited. Canada. Northern Environmental Protection Branch [Sponsor]. Canada. Environment Canada [Sponsor].
Ottawa : DIAND, 1985.
xxi, 162 p. : ill. ; 28 cm.
(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)
(NOGAP project no. C.21 : Multi-service projects)
Appendices.
References.
ACU, OORD, NWYIN

The Beaufort Environmental Monitoring Project (BEMP) was initiated in 1983 by Indian and Northern Affairs Canada and Environment Canada. The program is to provide the technical basis for the design, operation and evaluation of a comprehensive and defensible environmental research and monitoring program to accompany phased hydrocarbon development in the Beaufort Sea. This document is the report of the activities during the second year of the project and contains recommendations for future environmental studies. The primary activities during 1984-85 were a pre-workshop review of studies initiated since December 1983, preparation of project overviews describing the purpose of these investigations and their relationship to existing BEMP hypotheses, the conduct of a workshop in early February 1985, and the preparation of this report. [The hypotheses relate to the effects of the petroleum industry, including ice-breaker transportation, offshore structures, and oil spills, on the biota of the Beaufort Sea and region, including whales, seals, polar bears, seabirds, and fish.] ... (Au)

I-183687
White whale use of the southeastern Beaufort Sea, July - September 1984 / Norton, P. Harwood, L.A. Canada. Dept. of Fisheries and Oceans. Western Region.
Winnipeg, Man. : Dept. of Fisheries and Oceans, Western Region, 1985.
v, 46 p. : ill. ; 28 cm.
(Canadian technical report of fisheries and aquatic sciences, no. 1401)
(NOGAP project no. B.01 : Effects of vessel noise and traffic on arctic marine mammals)
Appendices.
References.
ACU

This report presents data collected on white whales (Delphinapterus leucas) during six systematic aerial surveys of the southeastern Beaufort

Sea during July, August and September, 1984. The first survey coincided with the period when white whales concentrated in the Mackenzie Estuary, yet 40.8 white whales/1,000 sq/km were observed offshore. White whale abundance in the offshore Beaufort generally increased from early July through to the third week of July (99.7/1,000 sq km), and then declined. Cow-neonate pairs were frequently recorded offshore. White whales may have started moving into Alaskan waters as early as mid-July, although the results suggest that most migrated from the region between late July and mid-September. The July 21-23 survey results were used to calculate a minimum estimate of 7,081 animals in the study area; this estimate does not include whales in Amundsen Gulf, and has not been corrected for unseen animals or for reduced detectability of white whales in outer portions of the transect strip. Calving and feeding may occur offshore. (Au)

I-188298

Identification and characterization of arctic nearshore benthic habitats / Thomson, D.H. Martin, C.M. Cross, W.E. Canada. Dept. of Fisheries and Oceans. Western Region.

Winnipeg, Man. : Dept. of Fisheries and Oceans, Western Region, 1986.

vii, 70 p. : ill., map ; 28 cm.

(Canadian technical report of fisheries and aquatic sciences, no. 1434)

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

Appendices.

References.

ACU

Infaunal samples (n = 460) from depths of 1-55 m at 25 sites in the eastern and central Canadian Arctic islands were analyzed. Nine infaunal species assemblages defined by factor analysis were, for the most part, not restricted in their geographical distribution but did show evidence of depth and substrate preferences. An assemblage that included the bivalve Portlandia arctica was characteristic of fine silt substrates; coarser heterogeneous substrates often supported assemblages that included the bivalves Macoma calcarea, Astarte borealis and other species. Assemblages that included amphipods were characteristic of shallow depths, and assemblages that included the polychaetes Maldane sarsi and Owenia fusiformis, the bivalve Nuculana minuta, and cumaceans were characteristic of deeper water. These assemblages also showed different substrate associations. Depth, substrate, exposure, mortality and food supply appeared to be major determinants of standing crop and community structure. ... (Au)

I-189294

Cameron Island benthos – preliminary baseline community description / LGL Limited, Environmental Research Associates. Cross, W.E. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Ottawa : Indian Affairs and Northern Development, 1986.

x, 47 p. : ill. ; 28 cm.

(NOGAP project no. A.12 : Contaminants in the aquatic environment and quality of food species)

Cover title.

Appendices.

References.

ACU, OORD, NWYIN

This study presents preliminary data, collected during August 1985, on shallow water benthic communities and on hydrocarbon concentrations in sediments and benthos from the south shore of Cameron Island in the Canadian High Arctic. The purpose of the study was to collect data at the location where oil from Panarctic's Bent Horn facility is loaded onto tankers, and to compare that location with a control site several kilometres away. Sampling at the loading zone was completed before the first transfer of oil (to M/V Arctic, on 26 August 1985), and previous marine activity in the area had been minimal. Data presented herein will constitute a baseline with which to compare any future changes that may result from chronic or episodic releases of oil at the loading area. ... (Au)

I-192791

Bowhead whale monitoring study in the southeast Beaufort Sea, July-September 1984 / ESL Environmental Sciences Limited. Harwood, L.A. G.A. Borstad Limited. Borstad, G.A. Environmental Studies Revolving Funds (Canada) [Sponsor]. Canada. Indian and Northern Affairs Canada [Sponsor].

Ottawa : ESRF [publisher] ; Calgary, Alta. : InfoPall, Pallister Resource Management Ltd. [distributor], 1985.

ix, 99 p. : ill., maps ; 11 x 15 cm.

(Environmental Studies Revolving Funds report, no. 009)

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

ISBN 0-920783-08-02.

Appendices.

References.

ACU, NFSMO, OORD, NWYIN

Systematic aerial surveys were conducted in the southeast Beaufort Sea during the periods 18-27 August and 5-13 September 1984, to document the abundance and distribution of bowhead whales in relation to industrial activity. ... Surface oceanographic conditions at the time of the surveys are described using satellite imagery analyses and in situ temperature data from industry vessels. Bowhead sightings from four additional systematic aerial surveys of the region in July and early August 1984 are also discussed. ... During the 18-27 August survey, 36 bowheads were observed on transect, 17 bowheads were seen off-transect, and 41 were observed during ferrying flights. Estimated bowhead abundance during this survey was 500 to 800 for the southeast Beaufort Sea, and 300 to 500 for west Amundsen Gulf. A total of 42 bowheads was observed on-transect, and 66 were seen during ferrying flights. Estimated bowhead abundance was from 1200 to 1900 in the southeast Beaufort Sea, and from 300 to 500 in west Amundsen Gulf. The apparent fluctuations in bowhead abundance in the southeast Beaufort Sea coincided with changes in the general distribution and activities of whales observed, and in the oceanography of the area. During the surveys in July, bowheads were generally observed 100 km or further from shore in association with ice, or in ice, or in cold, clear water. Observed activities during July included only diving, swimming at the surface, and resting. ... most animals observed were in relatively large groups in nearshore ice-free or open waters. They were feeding and socializing, and were congregated near Cape Bathurst and in Franklin Bay, where satellite imagery showed vigorous convergent surface circulation (22-23 August); 100 km north of Cape Dalhousie (no image available); and near strong oceanographic fronts marking the edge of the Mackenzie plane and an upwelling along the Yukon coast (11-12 September). These types of oceanographic features often attract or concentrate zooplankton in other regions. ... (Au)

I-192899

A description of arctic nearshore meiobenthos from oiled and unoiled sediments at Cape Hatt, northern Baffin Island / LGL Limited, Environmental Research Associates. Martin, C.M. Cross, W.E. Canada. Dept. of Fisheries and Oceans. Western Region [Sponsor].

Winnipeg, Man. : Dept. of Fisheries and Oceans, Western Region, 1986.

iv, 24 p. : ill. ; 28 cm.

(Canadian technical report of fisheries and aquatic sciences, no. 1468)

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

References.

ACU

Benthic meiofauna from shallow nearshore waters at Cape Hatt,

northern Baffin Island, were dominated by nematodes (68.4% of individuals collected), foraminiferans (10.1%), and copepods (7.7%). Densities were high (overall average of 582.5 individuals cu/cm) relative to most other Arctic and boreal locations studied. Analyses of variance revealed several types of systematic variability in the densities of dominant meiofaunal groups: variability among depths, bays, and years. Possible effects of oil released during the Baffin Island Oil Spill (BIOS) project in 1981 were indicated in a posteriori comparisons between reference bays and one bay where sediment oil concentrations were elevated. In the oiled bay, (1) nematode densities were lower than in four other bays during 1982, (2) copepod densities decreased at 6 m depth between 1982 and 1983, and (3) depth distributions of ostracods and foraminiferans differed from those in the reference bay in 1983. Each of these differences was consistent with differences in measured (or presumed) oil concentrations among depths, bays, and years. However, the lack of pre-spill data and replicated oil treatments precludes unequivocal conclusions; factors other than oil (e.g. substrate or exposure) may have been responsible for the observed patterns of distribution. Mean nematode:copepod (N/C) ratios and among-replicate variability in those values were high in two reference bays but not in the oiled bay, supporting recent evidence that N/C ratios are not reliable pollution indicators. (Au)

I-194930

Aspects of the biology of arctic cod (Boreogadus saida) and its importance in arctic marine food chains / Bradstreet, M.S.W. Finley, K.J. Sekerak, A.D. Griffiths, W.B. Evans, C.R. Fabijan, M.F. Stallard, H.E. Canada. Dept. of Fisheries and Oceans.

Winnipeg, Man. : Dept. of Fisheries and Oceans, 1986.

viii, 193 p. ; 28 cm.

(Canadian technical report of fisheries and aquatic sciences, no. 1491)

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

References.

ACU

Arctic cod occur throughout the marine waters of northern North America, as far north as 88 degrees N. ... The diet of 708 Y-O-Y Arctic cod from six locations across northern Canada was investigated. ... The age-frequency distributions of cod otoliths in predator samples (stomachs, feces) and in a few fish collections were compared. ... Growth of Arctic cod was investigated. ... The distributions and diets of three migratory marine mammals occurring in the eastern Canadian Arctic (harp seal, narwhal and white whale) indicated that Arctic cod undergo a major inshore movement during the late summer. ... The dispersed distribution and diet of ringed seals, however, indicates that Arctic cod occur throughout much of the eastern Canadian Arctic on a year-round basis. Based on the results of this study we argue that predators are excellent sampling agents for Arctic cod. The collection of a small number of ringed seal samples across the North over several years would permit an assessment of natural variability in the age structure, growth and mortality of Arctic cod. (Au)

I-195260

Experimental use of aerial photogrammetry to assess the long term responses of bowhead whales to offshore industrial activities in the Canadian Beaufort Sea, 1984 / LGL Limited, Environmental Research Associates. Davis, R.A. Koski, W.R. Miller, G.W. Northern Affairs Program (Canada) [Sponsor]. Canada. Supply and Services Canada [Sponsor].

King City, Ont. : LGL Ltd., 1986.

xvi, 157 p. : ill., maps ; 28 cm.

(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)

Appendices.

References.

ACU, OORD, NWYIN

This study tested a photogrammetric approach as a method to examine the effects of offshore industrial activities in the Canadian Beaufort Sea on bowhead whales. Vertical low-level aerial photography was used to measure and individually identify whales present adjacent to areas of industrial activity and in control areas remote from these activities. In addition, aerial surveys were used to estimate numbers of whales present in and adjacent to the areas photographed. Specifically, the study attempted (1) to document daily and weekly movements of individually recognizable bowhead whales in relation to the presence or absence of industrial activities, (2) to determine whether individual whales return in subsequent years to areas where they encountered industrial activities, (3) to examine the relationship between a whale's length and its occurrence near industrial activities, (4) to determine whether bowheads in the industrial area are representative of the Western Arctic population, and (5) to increase the sample size of measured and individually recognizable whales. ... (Au)

I-203815

Assessment of the value of stratified sampling for aerial surveys : a case study of bowhead whales in the Beaufort Sea / Ian Robertson Consulting Ltd. Robertson, E.O. Robertson, I. Canada. Dept. of Fisheries and Oceans [Sponsor].

Winnipeg, Man. : Dept. of Fisheries and Oceans, Central and Arctic Region, 1987.

iv, 28 p. : maps ; 28 cm.

(Canadian technical report of fisheries and aquatic sciences, no. 1500)

(NOGAP project no. B.01 : Effects of vessel noise and traffic on arctic marine mammals)

Appendices.

References.

ACU

The results of the 1981-1984 monitoring surveys of bowhead whales (Balaena mysticetus) in the Beaufort Sea were re-analyzed to assess the feasibility of future stratified sampling. Within a study area bounded by 72 degrees N, the Beaufort Sea coast, 128 degrees W and 141 degrees W, the original whale observation data were used to assign sightings to 130 subareas of equal area. Cluster analysis was chosen as the method of investigating the location, dimensions, and stability of the density pattern of whale sightings. Variance in annual abundance prompted the transformation of the subarea density data to ranks, and the cluster analysis was undertaken using a contiguity constraint. This meant only adjacent areas could be. ... Population estimates correspond closely with those reported in the annual monitoring reports. These estimates confirm that in 1983 and 1984 lower numbers of bowhead whales used the area established in this study. The population estimates presented here are qualified by an estimate of variance, which is recommended as a minimum requirement for population monitoring studies. The study also recommended that bowhead whale surveys should continue to be flown in evenly-spaced sequential strip transects, but that the data be regrouped by location into approximately square subareas for density analysis. (Au)

I-204188

Physical characteristics, terrain associations and soil properties of arctic fox (Alopex lagopus) dens in northern Yukon Territory, Canada : final report / Yukon Territory. Fish & Wildlife Branch. Smits, C.M.M. Slough, B.G. Land Resource Research Institute (Canada). Smith, C.A.S. Yukon Territory. Dept. of Renewable Resources [Sponsor].

[Whitehorse, Y.T. : Dept. of Renewable Resources], 1987.

v, 27 p. : ill., map ; 28 cm.

(NOGAP project no. G.15 : Economic harvest potential and management of arctic fox in Yukon)

Two folded maps in envelope.

Appendix.

References.
ACU

Physical and soil characteristics of arctic fox (Alopex lagopus) dens on Herschel Island and the Yukon Coastal Plain, Yukon Territory, Canada are described. Additionally, their distribution (n=42) is related to terrain map units within the study area. Dens are generally associated with warm and well drained landscape positions. Burrow entrances are significantly oriented toward the south ($p<0.0025$). Soils of dens are coarse textured and well drained. Mean depth to permafrost under the den (172 cm) is greater ($p<0.02$) than at adjacent sites (44 cm). Certain unique soil profile characteristics, particularly the replacement of common cryoturbation features with those of zooturbation and the formation of humus rich surface horizons, appear to be the result by denning activities by foxes. Observed differences in soil temperature and depth to permafrost between den site soils and adjacent soils have likely been caused, at least in part, by denning activities. Den distribution is evaluated using an 1:25,000 ecological (soil and vegetation) map of Herschel Island and a 1:125,000 map of surficial deposits and landforms of Yukon Coastal Plain. ... (Au)

I-204390

Safety in polar bear country / Bromley, M.A. Northwest Territories. Dept. of Renewable Resources.
[Yellowknife, N.W.T.] : N.W.T. Renewable Resources, 1986.
24 p. : ill. ; 22 cm.
(NOGAP project no. H.13 : Deterrent studies for hydrocarbon development impact area)
ISBN 0-7708-750-X.
References.
ACU

The increased use of land resources in the last two decades, largely prompted by accelerated exploration and development of non-renewable resources, has brought significant pressures to bear on raptors. A survey of literature was undertaken to determine the possibility of developing defensible, biologically based limitations under which resource development might optimally proceed. The extent of the literature is such that spatial, temporal and procedural guidelines may be developed on a site/project-specific basis. No universal or omnibus restrictions are proposed, other than basic minimums, which may be incorporated into the NWT Wildlife Service legislation/regulatory base. Such minimums are to be augmented by local conditions. Suggestions are given for education programs, increase in the legitimacy of the NWT legal base for habitat and raptor management, and concerns for future study. (ASTIS)

I-207136

Zooplankton of a bowhead whale feeding area off the Yukon coast in August 1985 / LGL Limited, Environmental Research Associates. Bradstreet, M.S.W. Arctic Sciences Limited. Fissel, D.B. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
King City, Ont. : LGL Limited, 1986.
v, 155 p. : ill. ; 28 cm.
(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

The broad objective was to conduct field investigations on oceanographic conditions and the presence of planktonic food to understand better the significance of the study area in the bowhead whales' annual energy budget. Three tasks were undertaken and integrated: (1) physical oceanographic characterization of the study area; (2) determination of zooplankton biomass in the study area; (3) assessment of the food value of zooplankton available to bowheads. The hydrographic regime occurring off the Yukon coast in late summer with prevailing easterly winds is conducive to the formation of zooplankton concentrations, which were found during this study. There is strong evidence that bowhead whales were feeding on these very small items. The results are consistent with the hypothesis that locations with high zooplankton biomass vary from year to year probably depending on regional and local meteorological events. The results also suggest that dominant species in the zooplankton are also variable. However, to evaluate fully the hypothesis that bowhead distribution varies in response to changes in the distribution of their food, information is needed on zooplankton availability along the Yukon coast in years with prevailing westerly winds during late summer. (NOGAP)

I-207195

Reactions of beluga whales and narwhals to ship traffic and ice-breaking along ice edges in the eastern Canadian High Arctic : 1982-1984 / LGL Limited, Environmental Research Associates. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Ottawa : DIAND, 1986.
1 v. (various pagings) : ill. ; 28 cm.
(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 37)
(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This report provides a general overview of a three-year study of the effects of ships and icebreaking on beluga whales and narwhals. This study was a response to specific concerns regarding proposals to send the MV ARCTIC through the ice in Admiralty Inlet and to a broader concern about the effects of arctic shipping on marine mammals. Whale behaviour was monitored in three states: undisturbed; when the ships arrived and during periods of ship activity; and for short post-disturbance periods. The results clearly demonstrate that belugas and narwhals in the High Arctic are very sensitive to disturbance by shipping in the spring. However, the two species respond differently, in ways that reflect their overall survival strategies. These have been designated as a "flee" response in the beluga and a "freeze" response in the narwhal. The observable and audible behavioral traits associated with these patterns are described. (NOGAP)

I-207225

Simultaneous counts of white whales using visual and photographic censusing techniques in the Beaufort Sea and Amundsen Gulf, July 1985 / PN Research Projects. Norton, P. Canada. Dept. of Fisheries and Oceans. Western Region. Strong, J.T. Weaver, P.A. ESL Environmental Sciences Limited. Harwood, L.A. Electro-Magnetic Sensing and Interpretation. Barber, D.G. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Sidney, B.C. : PN Research Projects : ESL Ltd. ; Winnipeg, Man. : DFO, Western Region : Electro-Magnetic Sensing and Interpretation, 1986.
16 p. : ill. ; 28 cm.
(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)
Appendix.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

During July 1985, concurrent aerial survey programs, one using visual and one using photographic censusing techniques, on white whales (Delphinapterus leucas) in the eastern Beaufort Sea and Amundsen Gulf provided an opportunity to compare these two techniques. ... To our knowledge, the present study is the first to compare simultaneous counts of cetaceans using aerial, visual and photographic techniques

over a range of habitats and conditions. (Au)

I-207365

Reactions of beluga whales and narwhals to ship traffic and ice-breaking along ice edges in the eastern Canadian High Arctic : 1982-1984 / LGL Limited, Environmental Research Associates. Finley, K.J. David, R.A. Canada. Indian and Northern Affairs Canada [Sponsor].

King City, Ont. : LGL Limited, 1984.

1 v. (various pagings) : ill. ; 28 cm.

(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

This report provides a general overview of a three-year study of the effects of ships and icebreaking on beluga whales and narwhals. This study was a response to specific concerns regarding proposals to send the MV Arctic through the ice in Admiralty Inlet and to a broader concern about the effects of Arctic shipping on marine mammals. Whale behavior was monitored in three states: undisturbed; when the ships arrived and during periods of ship activity; and for short post-disturbance periods. The results clearly demonstrate that belugas and narwhals in the High Arctic are very sensitive to disturbance by shipping in the spring. However, the two species respond differently, in ways that reflect their overall survival strategies. These have been designated as a "flee" response in the beluga and a "freeze" response in the narwhal. The observable and audible behavioral traits associated with these patterns are described. (NOGAP)

I-207411

Effects of explosives use in the marine environment : Proceedings of the Workshop on Effects of Explosives Use in the Marine Environment, January 29-31, 1985, Halifax, N.S. / Green, G.D. [Editor]. Engelhardt, F.R. [Editor]. Paterson, R.J. [Editor]. Canada. Oil and Gas Lands Administration.

[Ottawa : Canada Oil and Gas Lands Administration, 1985].

xii, 383 p. : ill. ; 28 cm.

(Canada Oil and Gas Lands Administration. Environmental Protection Branch technical report, no. 5)

(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)

Appendices.

OORD, NWYIN

The workshop objectives were: (1) to review information and data on the use of explosives and other energy sources in marine seismic exploration and marine construction, and on the nature of discharges associated with these uses (2) to review the effects of chemical explosives and other energy sources on marine fish and mammals, and seabirds (3) to review the effectiveness of mitigative measures in reducing the environmental effects of explosives use and (4) to assess the adequacy of existing research methods and effects prediction models used to study and monitor marine explosives use. The proceedings contain the papers presented, discussions on the papers and general panel discussions. Specific conclusions respecting the adequacy of current modelling and monitoring techniques are stated and areas where new research is needed are identified. The workshop also produced a summary of mitigative measures which could be useful to regulatory agencies. (NOGAP)

I-207420

Taxonomic key to larval fish species which occur in the shelf waters and estuaries of the Canadian Beaufort Sea / North/South Consultants Inc. Konrad, S.-L.R. Canada. Dept. of Fisheries and Oceans.

Winnipeg, Man. : North/South Consultants Inc., 1985.

v, 128 p. ; 28 cm.

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

Working draft report.

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, MWFW

The species of larval fish occurring within the Canadian Beaufort Sea shelf and its estuaries have been systematically addressed. A precis of larval fish development and identification techniques are presented for the technician and research staff confronted with identifying larval fish. Some problems and recommendations in larval fish taxonomy are presented. A key to 12 families has been constructed, strictly based on species occurring in this region. A key to species is also provided for 8 of the 12 families and 30 of the 53 possible species. These keys are an attempt to summarize the present taxonomic knowledge on larval fish in this area and to accelerate and simplify specimen identification. Species descriptions, based on available information, follow each key, along with a list of useful references which comprises the bibliography. Illustrations, if available, follow each species description. (Au)

I-207446

Beaufort Sea coastal bird surveys 1985 season / Canadian Wildlife Service. Alexander, S.A.

Edmonton, Alta. : Canadian Wildlife Service, 1986.

viii, 80 p. : ill. ; 28 cm.

(NOGAP project no. C.07 : Migratory bird disturbance, assessment and management)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, YWLS, NWYECW, AEECW

Three surveys were flown along the coast of the Beaufort Sea from Komakuk Beach, Yukon Territory to the Baillie Islands, Northwest Territories in late July, mid-August and early September 1985 to locate broodrearing, moulting and migrating birds. Results were compared to similar flights flown in 1980 and 1981, and coastal regions important to birds were identified, based on the results of all three years of surveys. (Au)

I-207454

Field evaluation of an infra-red detection technique for surveying arctic marine mammals / Compuheat Services Canada Ltd. Fitch, R. Dome Petroleum Limited [Sponsor]. Ward, J.G. Canada. Dept. of Fisheries and Oceans [Sponsor]. Canada. Indian and Northern Affairs Canada [Sponsor]. Federal Energy Research and Development Program (Canada) [Sponsor]. Gulf Canada Resources Inc. [Sponsor]. Petro-Canada [Sponsor].

Calgary, Alta. : Compuheat Services Canada Ltd. : Dome Petroleum Limited, 1984.

30 p., 6 p. of plates : ill. ; 28 cm.

(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)

Appendix.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

This study evaluated the feasibility of using an infra-red detection system to detect and thereby census occupied seal lairs and seals present on ice surfaces. Evaluations were carried out in the spring of 1984 in the Resolute Bay area and in the southeastern Beaufort Sea. The results showed the system to be effective in detecting seals on the ice surface under various arctic ambient conditions. Although the equipment also showed promise in detecting and censusing occupied seal lairs, a more comprehensive test is required to determine its

usefulness in this regard. (NOGAP)

I-207470

Energetics as a tool for population estimates (ringed seals and polar bears) / Stacey, B. Canada. Indian and Northern Affairs Canada [Sponsor].

Ottawa : Bruce Stacey, 1985.

36 p. : ill. ; 28 cm.

(NOGAP project no. A.09 : Impacts of industry on large mammals)

Appendix.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD

This study makes use of the existing data base for polar bears and ringed seals in a preliminary attempt to estimate indirectly seal population levels. Traditional sea population estimates are complicated by logistical limitations of survey methodology, extent of coverage and behavioral influences on haul-out patterns. Therefore, aerial surveys of ringed seals, as of other marine mammals, are used as indicators of relative distribution and abundance rather than as population estimates. Long-term data sets exist on the abundance and age distribution of polar bears, obtained primarily from tagging programs and harvest monitoring. There is also considerable information on polar bear behaviour, physiology and energetics. The ringed seal is the principal prey of polar bears. By combining the existing information on polar bear populations and energetics requirements, a simple model was constructed to estimate the ringed seal population. The report also presents an examination of all relevant existing data and a description of the important data gaps in the literature. (NOGAP)

I-207497

Caribou and human activity : proceedings of the 1st North American Caribou Workshop, Whitehorse, Yukon, 28-29 September 1983 / Martell, A.M. [Editor]. Russell, D.E. [Editor]. Canadian Wildlife Service.

Ottawa : Canadian Wildlife Service, 1985.

68 p. : ill. 28 cm.

(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)

Document not seen by ASTIS. Citation from NOGAP.

OORD

These proceedings contain the 18 papers presented at the 1st North American Caribou Workshop. Ten papers appear in full and the remainder appear as abstracts. The first six published papers show the variability in response of caribou populations to aircraft, highways and pipelines. Two others address the government regulatory process and the role of native users in caribou management. (NOGAP)

I-207527

Investigation of the possible inter-island movements of Peary caribou across the sea ice of Prince of Wales Strait between Banks and Victoria : islands / Miller, F.L. Canadian Wildlife Service. Canada. Indian and Northern Affairs Canada [Sponsor].

Edmonton, Alta. : Canadian Wildlife Service, 1986.

43 p. : maps ; 28 cm.

(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)

(NOGAP project no. C.08 : Inter-island movements of Peary caribou across Prince of Wales Strait between Banks and Victoria islands)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, MWFW, AEECW

A bibliography of Peary caribou (Rangifer tarandus pearyi) literature was compiled that includes most references up to 1984. The bibliography comprises three sections: (1) full references and abstracts; (2) annotations relating to localities; and (3) annotations relating to subjects of relevance to Peary caribou biology. Unsystematic searches were carried out by helicopter during March and May-June 1985 to obtain evidence of inter-island movements of caribou across the sea ice of Prince of Wales Strait. The search area included all of Prince of Wales Strait, northern Amundsen Gulf, and the adjacent land areas of eastern Banks and western Victoria Islands, Northwest Territories. No direct evidence was obtained for caribou travelling on the sea ice of Prince of Wales Strait or northern Amundsen Gulf. However ... indirect evidence suggested that such movements may have occurred. (Au)

I-207616

Arctic charr population studies : 1. Big Fish River; 2. river system survey / Gillman, D.V. Sparling, P. Gillis, B. Canada. Dept. of Fisheries and Oceans [Sponsor].

[S.l. : s.n.], 1985.

57 p. : ill. ; 28 cm.

(NOGAP project no. B.04 : Hydrography, Northwest Passage)

Internal report prepared for the Arctic Resource Assessment Section, DFO, Western Region.

Document not seen by ASTIS. Citation from NOGAP.

OORD, AEECW

This study focused on the Big Fish River, NWT, where, during August and September 1984, a domestic survey at the mouth, a survey of the entire river system to identify possible weir locations, and a tagging program at the "Fish Holes" location on the upper area of Cache Creek, were conducted. Local fishermen were interviewed as to species and total numbers of fish caught, net used, duration of set and utilization of the catch. Two possible weir locations were identified and mapped on the lower portion of the Big Fish River and one above the confluence of Big Fish River and Cache Creek. A total of 467 Arctic Charr were captured and tagged. Captured fish were sampled live for sex and length. A random sample of 192 Arctic charr from the domestic fishermen's catch was also reviewed. Age and length frequency distributions, catch per unit of effort and daily numbers of Arctic charr taken are presented. (NOGAP)

I-207624

Identification keys to the Isopoda, Cumacea, Decapoda, Euphausiacea and Mysidacea zooplankton of the Beaufort Sea / Invertebrate Research Associates. Arntfield, P. Canada. Dept. of Fisheries and Oceans [Sponsor].

Winnipeg, Man. : Invertebrate Research Associates, 1985.

vi, 34 p. : ill. ; 28 cm.

(NOGAP project no. B.04 : Hydrography, Northwest Passage)

References.

Working draft report.

Document not seen by ASTIS. Citation from NOGAP.

OORD, MWFW

Taxonomic keys and biological information are provided for zooplankton species from the Beaufort Sea. Ten species: Eualus gaimardi (Milne-Edwards), Sabinea septemcarinata (Sabine), Thysanoessa longipes (Brandt), Thysanoessa inermis (Kroyer), Thysanoessa raschii (M. Sars), Mysis oculata (Fabricius), Mysis relicta Loven, Mysis litoralis (Banner), Diastylis rathkei (Kroyer) and Mesidotea entomon (Linnaeus) are represented. (Au)

I-207640

Taxonomic key to the pelagic amphipods (Crustacea, Amphipoda) inhabiting the Beaufort Sea / Invertebrate Research Associates. Korczynski, R.E. Canada. Dept. of Fisheries and Oceans [Sponsor].

Winnipeg, Man. : Invertebrate Research Associates, 1985.

vi, 79 p. : ill. ; 28 cm.

(NOGAP project no. B.04 : Hydrography, Northwest Passage)
References.
Working draft report.
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

The taxonomic key presented is to 18 species of pelagic amphipods collected in plankton tows taken over the continental shelf in the Beaufort Sea. The key is subdivided into a series of dichotomous keys to suborder, family, and species with pertinent illustrations. Useful references as well as notes on distribution are provided. (Au)

I-207675
Taxonomic key to the benthic Polychaeta of Tuktoyaktuk Harbour, Northwest Territories / Invertebrate Research Associates. Konrad, S.-L.R. Canada. Dept. of Fisheries and Oceans [Sponsor].
Winnipeg, Man. : Invertebrate Research Associates, 1985.
vii, 83 p. : ill. ; 28 cm.
(NOGAP project no. B.04 : Hydrography, Northwest Passage)
Working draft report.
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

The benthic polychaete species of Tuktoyaktuk Harbour, N.W.T. have been systematically addressed. A precis of polychaete characteristics and identification techniques are provided. Single access, dichotomous keys to 11 families and 18 species effectively present the taxonomic criteria required to separate these taxa. Family or species descriptions, based on the literature and specimens from Tuktoyaktuk Harbour, provide a verification of each definitive choice in the keys. Illustrations and an extensive glossary complement the text. (Au)

I-207691
Taxonomic key to the Tubificoides (Oligochaeta, Tubificidae) inhabiting Tuktoyaktuk Harbour, Northwest Territories / Invertebrate Research Associates. Korczynski, R.E. Canada. Dept. of Fisheries and Oceans [Sponsor].
Winnipeg, Man. : Invertebrate Research Associates, 1985.
v, 24 p. : ill. ; 28 cm.
(NOGAP project no. B.04 : Hydrography, Northwest Passage)
References.
Working draft report.
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

The illustrated taxonomic key presented is to the Rubificoides (Oligochaeta, Tubificidae) inhabiting Tuktoyaktuk Harbour, Northwest Territories. Two species, namely Tubificoides cuspisetosus Baker and Tubificoides pseudogaster (Dahl), are described. The ecology and distribution of the family Tubificidae are discussed. (Au)

I-207713
Identification of molluscs from Tuktoyaktuk Harbour, Northwest Territories / Invertebrate Research Associates. Arntfield, P. Canada. Dept. of Fisheries and Oceans [Sponsor].
Winnipeg, Man. : Invertebrate Research Associates, 1985.
iv, 23 p. : ill. 28 cm.
(NOGAP project no. B.04 : Hydrography, Northwest Passage)
References.
Working draft report.
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

Keys to the identification and biological information for Cylichna alba Brown, Trichotropis borealis Broderip and Sowerby, Oenopota arctica (A. Adams), Yoldiella intermedia (M. Sars), Yoldiella frigida (Torrell), Cyrtodaria kurriana Dunker and Macoma inconspicua (Broderip and Sowerby) are presented for these molluscs from Tuktoyaktuk Harbour, Northwest Territories. (Au)

I-207721
Review of the limnology of the Mackenzie Delta and Tuktoyaktuk Peninsula / Agassiz North Associates Ltd. Ramsey, D. Ramlal, P. Canada. Dept. of Fisheries and Oceans [Sponsor].
Winnipeg, Man. : Agassiz North Associates Ltd., 1985.
1 v. : maps ; 28 cm.
(NOGAP project no. B.03 : Critical western arctic freshwater habitats)
Appendices.
Bibliography: [38] p.
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

This report reviews the available information on the limnology of the Mackenzie Delta to provide a general description of the factors limiting primary and secondary productivity and those factors limiting utilization of that production by fish. The report includes a bibliography of arctic limnology and a listing of plankton collections from Mackenzie Delta and Tuktoyaktuk Peninsula lakes. (NOGAP)

I-207730
Taxonomic key to the benthic amphipods (Crustacea, Amphipoda) inhabiting Tuktoyaktuk Harbour, Northwest Territories / Invertebrate Research Associates. Korczynski, R.E. Canada. Dept. of Fisheries and Oceans [Sponsor].
Winnipeg, Man. : Invertebrate Research Associates, 1985.
vi, 60 p. : ill. ; 28 cm.
(NOGAP project no. B.04 : Hydrography, Northwest Passage)
References.
Working draft report.
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

The taxonomic key presented is to 11 species and 8 genera of benthic amphipods collected in Tuktoyaktuk Harbour, Northwest Territories. The key is subdivided into a series of dichotomous keys to suborder, family, and species. Pertinent illustrations, references and species distribution are provided. (Au)

I-207748
Taxonomic key to the benthic Isopoda inhabiting the Beaufort Sea and Tuktoyaktuk Harbour, Northwest Territories / Invertebrate Research Associates. Korczynski, R.E. Canada. Dept. of Fisheries and Oceans [Sponsor].
Winnipeg : Invertebrate Research Associates, 1985.
vi, 83 p. : ill. ; 28 cm.
(NOGAP project no. B.04 : Hydrography, Northwest Passage)
Appendix.
Bibliography: p. 78-82.
Working draft report.
OORD, MWFW

The taxonomic key presented is to eleven species of benthic isopods collected in the Beaufort Sea including Tuktoyaktuk Harbour, Northwest Territories. The key is subdivided into a series of dichotomous keys to suborder for the Asellota, Gnathiidea, and Valvifera, to family and species. Pertinent illustrations, references and species distribution are provided. (Au)

I-207950

Bear deterrent study (twelve gauge ferret shell tests) Cape Churchill, Manitoba 1984 / Northwest Territories. Dept. of Renewable Resources. Derocher, A.E. Miller, J.S.

Yellowknife, N.W.T. : The Department, 1986.

ix, 39 p. : ill. ; 28 cm.

(File report – Northwest Territories. Dept. of Renewable Resources, no. 54)

(NOGAP project no. H.13 : Deterrent studies for hydrocarbon development impact area)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYRR, NWYGI

Polar bear (Ursus maritimus) deterrent tests using 12 gauge ferret shells (plastic slugs) were completed at Cape Churchill, Manitoba between 19 October – 4 November 1984. A total of 119 tests were performed (77 experimental and 42 control). No significant differences were found in the time spent in entry or exit between experimental and control bears in the three outer zones. Bears were hit an average of 2.14 times per experimental animal per trial, while control animals were not hit. Experimental bears returned to the bait site approximately 17 hours after being hit with a 12 gauge ferret shell, while control animals returned significantly later at about 43 hours. At least 87.5% of the marked animals returned to the bait site at least once; some bears returned a minimum of seven times. The deterrent shells were fairly uniform in performance with less than 4% noticeably aberrant. Plastic slugs were fired at an average distance of 24 m from the bears. Researchers had an overall accuracy of 89%. Strong winds affected the accuracy of the ferret shells. (Au)

I-207969

Infra-red detection and acoustic deterrent study Cape Churchill, Manitoba, 1984 / Compuheat Services Canada Inc. Northwest Territories. Dept. of Renewable Resources [Sponsor].

Calgary, Alta. : Compuheat Services Canada, 1986.

ix, 49 p. : ill. ; 28 cm.

(File report – Northwest Territories. Dept. of Renewable Resources, no. 55)

(NOGAP project no. H.13 : Deterrent studies for hydrocarbon development impact area)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYRR, NWYGI, ACU

A two-part study was carried out. ... Part one ... tested the feasibility of using an infrared system to detect (and also census) polar bears (Ursus maritimus) under natural arctic winter conditions, and to assess this system's usefulness as an early warning device. Part two consisted of a preliminary investigation into the feasibility of using an acoustic system ... to observe the effects of acoustic stimulation on bear behaviour and to determine any possible optimal frequencies for deterring these animals in their natural habitat. Results of part one indicate that the infrared wavelength band of 8-14 microns is practical for use in detecting polar bears in their natural habitat, despite adverse weather conditions. ... Results of part two showed that most bears were sensitive to the 0.1 – 9.0 kHz range of frequencies and were most effectively deterred at frequencies of 1.0 – 4.0 kHz. ... Because of the small sample size and the limited testing period, further investigation is recommended to obtain conclusive results. A list of possible influencing factors is offered for consideration for further testing. (Au)

I-207977

Safety in grizzly and black bear country / Bromley, M.A. Northwest Territories. Dept. of Renewable Resources [Sponsor].

[S.l.] : N.W.T. Dept. of Culture and Communications, 1986.

24 p. : ill. ; 22 cm.

(NOGAP project no. H.13 : Deterrent studies for hydrocarbon development impact area)

ISBN 0-7708-7151-8.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYRR, NWYGI

This booklet was written for the layman. It includes information on the nature of black and grizzly bears, how to avoid problems when travelling in black and grizzly bear country and what to do if a black or grizzly bear is encountered. Detection and deterrent systems that may be useful to the traveller or worker are discussed. (Au)

I-207985

Human/raptor interaction : management techniques in resource development scenarios / Scott, B.W.A. Northwest Territories. Dept. of Renewable Resources [Sponsor].

Yellowknife, N.W.T. : Dept. of Renewable Resources, 1985.

vii, 83 p. ; 28 cm.

(Manuscript report – Northwest Territories. Wildlife Service)

(NOGAP project no. H.13 : Deterrent studies for hydrocarbon development impact area)

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYRR, NWYGI

The increased use of land resources in the last two decades, largely prompted by accelerated exploration and development of non-renewable resources, has brought significant pressures to bear on raptors. A survey of literature was undertaken to determine the possibility of developing defensible, biologically based limitations under which resource development might optimally proceed. The extent of the literature is such that spatial, temporal and procedural guidelines may be developed on a site/project-specific basis. No universal or omnibus restrictions are proposed, other than basic minimums, which may be incorporated into the NWT Wildlife Service legislation/regulatory base. Such minimums are to be augmented by local conditions. Suggestions are given for education programs, increase in the legitimacy of the NWT legal base for habitat and raptor management, and concerns for future study. (Au)

I-207993

Abundance and distribution of muskoxen and caribou on Banks Island, July 1985 / Northwest Territories. Dept. of Renewable Resources. McLean, B. Jingfors, K. Case, R.

Yellowknife, N.W.T. :The Department, 1986.

ix, 45 p. : ill. ; 28 cm.

(File report – Northwest Territories. Wildlife Service, no. 64)

(NOGAP project no. H.16 : Renewable Resources baseline information for wildlife populations affected by hydrocarbon development)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYRR, NWYGI

A stratified strip transect survey of Banks Island, NWT was flown between 6 and 14 July 1985. The survey documented distribution and abundance of muskoxen (Ovibos moschatus) and Peary caribou (Rangifer tarandus pearyi). The total number of non-calf muskoxen observed on-transect was 5867 and the resulting estimate was 25,700 + 2050 (SE) muskoxen. Densities ranged from .21 muskoxen/sq km on south-central Banks Island to 1.52 muskoxen/sq km in the Thomsen River area. ... The proportion of calves to total classified was 15.3% (137/898). (Au)

I-208795

Migration, reproduction and feeding of lake whitefish, broad whitefish and arctic cisco in the Mackenzie River-Beaufort Sea region : a review of the literature / North/South Consultants Inc. Strange, N.E. Canada. Dept. of Fisheries and Oceans [Sponsor].

Winnipeg, Man. : North/South Consultants Inc., 1985.

iii, 47 p. : ill. ; 28 cm.

(NOGAP project no. B.03 : Critical western arctic freshwater habitats)

Bibliography: p. 30-39.

Document not seen by ASTIS. Citation from NOGAP.

OORD, MWFW

Lake whitefish, broad whitefish and arctic cisco from the Mackenzie are discussed with respect to migration, reproduction and feeding. All three species are anadromous, showing definite migrations to spawning grounds, as well as to feeding, overwintering and nursery areas (juveniles). All are fall spawners and move from overwintering areas to spawning grounds upstream in the Mackenzie River and its tributaries. ... The importance of three habitats is discussed: (1) the Delta region ... (2) freshwater systems (lakes and streams) ... (3) coastal areas, especially bays and lagoons, along Richards Island, Tuktoyaktuk Peninsula and the Yukon coast. ... (Au)

I-208817

Effects of physical and chemical gradients on the abundance and distribution of aquatic invertebrate species in the Mackenzie Delta : I. Preliminary review of unpublished data / Bilyj, B. Canada. Dept. of Fisheries and Oceans [Sponsor].

[S.l. : s.n.], 1985.

[43] p. : ill. ; 28 cm.

(NOGAP project no. B.03 : Critical western arctic freshwater habitats)

Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD, MWFW

Data on invertebrate species, physical measurements and chemical analyses taken at fifty-eight Delta stations representing freshwater lentic and lotic and marine estuarine habitats were compiled, synthesized and summarized. ... a total of 259 species were collected. ... Distributional patterns and densities of 50 of the most abundant Chironomidae species are plotted. The benthic community at each station-year(s) is characterized using % composition of major taxa, number of species and the Shannon-Weaver diversity index. The sampling habitats are described using a series of physical and chemical parameters. Ranges, means and sample numbers are summarized for 8 on-site measurements consisting of maximum depth, turbidity, water temerature, conductivity, pH, salinity, DO and alkalinity; 5 categories of bottom sediment composition ... and finally a series of chemical analyses for the following: major ions ... total dissolved particulate and bottom concentrations of nutrient elements ... and particulate seston. ... (Au)

I-208825

Results of a broad whitefish collection in freshwater systems along the Tuktoyaktuk Peninsula and in the inner Mackenzie Delta region / North/South Consultants Inc. Strange, N.W. MacDonell, D.S. Canada. Dept. of Fisheries and Oceans [Sponsor].

Winnipeg, Man. : North/South Consultants Inc., 1985.

iv, 25 p. : ill. ; 28 cm.

(NOGAP project no. B.03 : Critical western arctic freshwater habitats)

Appendix.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, MWFW

This report describes the materials and methods used to collect broad whitefish from freshwater systems on the Tuktoyaktuk Peninsula and the inner Mackenzie Delta, and to deliver these samples fresh frozen to the Freshwater Institute for subsequent analysis. (NOGAP)

I-210021

Arctic marine photoautrophic picoplankton / Smith, J.C. Platt, T. Li, W.K.W. Horne, E.P.W. Harrison, W.G. Subba Rao, D.V. Irwin, B.D.

(Marine ecology : progress series, v. 20, Jan. 1985, p. 207-220, ill.)

(NOGAP project no. B.09 : Non-summer ecology)

References.

Document not seen by ASTIS. Citation from NOGAP.

Abundance and activity of picoplankton (here defined as cells passing a 1 um Nucleopore screen) were studied in northern Foxe Basin, eastern Canadian Arctic. Substantial proportions (10 to 70 per cent) of the chlorophyll a content, ribulose-1, 5-biphosphate carboxylase activity (RuBPC, E.C. 4.1.1.39) and autofluorescent-bodies present in whole seawater samples passed a 1 um screen intact, photoautrophic particles. A smaller fraction (10 to 25 per cent) of the light-dependent 14C fixation was found in this picoplankton fraction, the difference possibly explained by a selective effect of screening on photosynthetic activity rather than by heterotrophic uptake of algal exudates. About 10 percent of the whole sample RuBPC was found to pass a 0.2 um diameter screen, indicating the presence of autotrophy in marine ultramicrobacteria (femtoplankton). A potential for growth in the femtoplankton fraction was also indicated by substantial fixation of tritiated nucleic acid precursors into macromolecules. (Au)

I-210277

Fishes, invertebrates and marine plants : the Beaufort Sea and the search for oil / Percy, R. Smiley, B. Mullen, T. Childerhose, R.J. [Editor]. Beaufort Sea Project (Canada). Canada. Dept. of Fisheries and Oceans [Sponsor].

[S.l.] : Beaufort Sea Project, 1985.

167 p. : ill. ; 28 cm.

(Beaufort Sea project overview report series)

(NOGAP project no. B.06 : Beaufort Sea oceanography)

Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD

This is the final volume of the Beaufort Sea Project series of Overview Reports. Its theme is a general outline of life histories and behavior of Beaufort Sea region fishes, marine invertebrates and plant life, and their relationship with each other and their surroundings. It explains the dependence of these life forms on the Mackenzie River, and Estuary and Arctic Ocean, the necessity for flexible "life-styles" forced on them by fluctuating conditions of salinity, temperature, ice, the availability of prey and the presence of predators (including man). The format of this report is geographical: beginning with the Mackenzie River, then moving downstream to the Estuary, and into the Beaufort Sea. ... The report then introduces industrial man to the scene, primarily the people involved in the exploration for gas and oil reserves. Use of the fish resource by native fishermen is discussed, as are the socio-economic effects of the oil industry presence. The dangers and effects of possible oil spills on the various life forms are outlined in the concluding sections of the report. (Au)

I-210340

Report of the Workshop on an Arctic Marine Conservation Strategy for the Department of Fisheries and Oceans, May 6-8, 1985 / Canada. Dept. of Fisheries and Oceans.

Winnipeg, Man. : Dept. of Fisheries and Oceans, 1985.

iii, 63 p. : ill. ; 28 cm.

(ARCOD working paper, no. 85- 3)

(NOGAP project no. B.11 : DFO NOGAP coordination)
Internal working paper.
Document not seen by ASTIS. Citation from NOGAP.
OORD, MWFW

The ARCOD-sponsored workshop on a DFO Arctic Marine Conservation Strategy included participants from agencies with a strong interest in Arctic marine conservation. Separate working groups examined conservation requirements related to harvesting, non-renewable resources, and transportation and protected areas. Plenary sessions compared results and put together the proposed elements of an implementation strategy. This report describes the proceedings and conclusions of the workshop, and contains its official record. (NOGAP)

I-210390

Key areas for birds in coastal regions of the Canadian Beaufort Sea / Smyth, K.E. Barry, T.W. Dickson, D.L. Canadian Wildlife Service.

Edmonton, Alta. : Canadian Wildlife Service, 1986.
v, 88 p. ; 28 cm + atlas (9 p. : maps ; 30 x 40 cm).
(NOGAP project no. C.07 : Migratory bird disturbance, assessment and management)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI, YWLS, ACGO, ACDP, ACI

Oil and gas development could have a major impact on the coastal habitat of the Beaufort Sea, which supports hundreds of thousands of migrating, breeding and moulting birds. ... The objective was to develop a series of maps which identify the key areas for birds along the Beaufort Sea coastline ... to enable quick responses to questions which may arise in the event of an oil spill .... The study area extends along the Beaufort Sea coastline from the Alaska-Yukon border to Baillie Islands off the tip of the Bathurst Peninsula. Emphasis was placed on the nearshore waters of the Beaufort Sea and the land that is below the storm tide line. However, information on birds using the offshore and the land above the storm tide line, within 2 km of the coast, was also reviewed and summarized. (NOGAP)

I-210404

Monitoring studies of seabirds at Prince Leopold Island / Gaston, A.J. Prach, R.W. Nettleship, D.N. Canadian Wildlife Service.

[S.l.] : Canadian Wildlife Service, 1985.
22 p. ; 28 cm.
(NOGAP project no. C.07 : Migratory bird disturbance, assessment and management)
Unpublished report.
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD

This report presents the results of a field study of seabirds on Prince Leopold Island conducted during the period 17 July to 1 August 1984. The objective was to make observations in the baseline study plots established during 1975-1977 in order to detect population trends. In addition, the study team weighed and measured samples of Thick-billed Murre and Northern Fulmar eggs and kept notes on all birds and mammals seen. Daily counts, timing of breeding, number of eggs present and sites occupied are discussed for Thick-billed Murre and Northern Fulmar. Observations on four other species are also presented. (NOGAP)

I-210412

Preliminary annotated bibliography : Peary caribou and related literature / Ealey, D.M. Nietfeld, M.T. Miller, F.L. [Editor]. Canadian Wildlife Service.

Edmonton, Alta. : Canadian Wildlife Service, 1986.
ii, 291 p. ; 28 cm.
(NOGAP project no. C.08 : Inter-island movements of Peary caribou across Prince of Wales Strait between Banks and Victoria islands)
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEECW

[This] bibliography includes abstracts and annotations of most Peary caribou references to 1984. ... In addition to articles and reports on Peary caribou, some relevant references on adjacent range to that of the Peary caribou or dealing with intergrade populations of caribou are included – notably Boothia Peninsula and northern Greenland. ... The bibliography is comprised of three sections: (1) full reference and abstracts, (2) annotations relating to localities, (3) annotations relating to subjects of relevance to Peary caribou biology. ... (Au)

I-210668

Arctic bears, NN / Environmental and Social Systems Analysts Ltd. Yukon Territory. Dept. of Renewable Resources [Sponsor].

[Vancouver, B.C.?] : Environmental and Social Systems Analysts Ltd., [1985].
1 videorecording, 95 slides, 1 sound tape reel.
(NOGAP project no. G.11 : Arctic bear awareness and hazard reduction)
Information kit.
Includes program guide, 19 p.
Document not seen by ASTIS. Citation from NOGAP.
YWLS

Due to slow reproduction and the effects of the harsh northern climate, just enough bears survive natural hazards and a carefully controlled hunting mortality to maintain their population. This video is designed to caution against another threat to bears – access to human food. The reproductive patterns of bears are discussed as are their general behaviour patterns, particularly those relating to a search for food. Making food available to bears, either through careless disposal of garbage or through deliberate feeding, is discouraged. (NOGAP)

I-210676

Den distribution, harvest and management of arctic fox in northern Yukon Territory / Smits, C.M.M. Jessup, R.H. Yukon Territory. Dept. of Renewable Resources.

Whitehorse, Y.T. : Yukon Territory. Dept. of Renewable Resources, 1985.
44 p. : ill., map (folded) ; 28 cm.
(NOGAP project no. G.15 : Economic harvest potential and management of arctic fox in Yukon)
References.
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

The distribution and occupancy of arctic fox (Alopex lagopus) dens is discussed from data collected on aerial surveys of the Yukon Territory's arctic coastal plain and Herschel Island during the summers of 1984 and 1985. ... A total of 55 fox dens were identified in the study area, 36 on the mainland and 19 on Herschel Island. ... Three of four natal dens located on Herschel Island were occupied by arctic fox and one by red fox (Vulpes vulpes) in both 1984 and 1985. No natal dens were found on the mainland in 1984; and 1985 two natal dens on the mainland yielded a red fox family and an arctic fox family. Red fox densities as evidenced from den occupance rates have declined since a survey in 1972. Proportions of natal dens were low in both years and suggestive of low population levels of arctic fox in the study area. ... Dens were randomly dispersed on Herschel Island, the mainland, and all areas combined. Spacing of natal dens on Herschel Island departed significantly ($p<0.01$) from random in both years and suggests territoriality among breeding foxes. ... [Information on harvest of arctic fox from the area is also reported.] Based on the low density of fox dens in the area, the harvest potential for foxes is believed to be

low. Further monitoring of breeding arctic fox performance and harvest is proposed. (Au)

I-210714

Safety in bear country : a reference manual / Bromley, M. Northwest Territories. Dept. of Renewable Resources.
Yellowknife, N.W.T. : N.W.T. Dept. of Renewable Resources, 1985.
1 v. (various pagings) : ill. ; 28 cm.
(NOGAP project no. H.13 : Deterrent studies for hydrocarbon development impact area)
Appendices.
References.
OORD, NWYRR, NWYGI, ACU

The significant increase in the number of people living and working in areas of the NWT with bear populations in the last few decades has resulted in a corresponding increase in the number of human-bear conflicts. In an effort to increase human safety and reduce the number of nuisance bear kills, the department of Renewable Resources (GNWY) initiated a bear detection and deterrent research and training program in 1981. The research component of the program, reflected in this manual, has involved the development and testing of detection systems and deterrent equipment. The manual also contains information on the nature of bears, ways to reduce the chances of encountering bears, design and maintenance of camps in bear country, and what to do if a bear is encountered. (NOGAP)

I-211362

Role of precision and accuracy in judging the reliability of biological measurements : a compendium of some perspectives by biologists / Smiley, B.D. [Editor]. Canada. Dept. of Fisheries and Oceans [Sponsor].
Sidney, B.C. : Institute of Ocean Sciences, 1984.
iii, 24 p. : ill. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

Since 1979, the Institute of Ocean Sciences ... has embarked on the compilation and appraisal of historical oceanographic data in the Canadian Arctic. The data's documentation about collection and analysis methodology is tabularized, mapped, and indexed in a series of inventory publications. ... These inventories also include a relatively simple, and to the greatest degree possible, objective rating scheme for appraising the reliability of the data. ... The [four papers contained in this compendium] were prepared, as debatable viewpoints, by the compiler-appraisers of the three biological inventories: whales, fishes, and zoobenthos. ... These authors agree that accuracy and precision are difficult challenging criteria for assessing the reliability of many biological measurements, especially when standards are absent. Nevertheless, they conclude that measurement quality must improve by new and improved application of such assurances and controls. Professional judgement is demanded in all cases. (Au)

I-211370

Review of current information on arctic cod (Boreogadus saida Lepechin) and bibliography / Sameoto, D. Canada. Dept. of Fisheries and Oceans [Sponsor].
Dartmouth, N.S. : Bedford Institute of Oceanography, 1984.
71 p. : ill. ; 28 cm.
(NOGAP project no. B.09 : Non-summer ecology)
Bibliography: p. 30-71.
Document not seen by ASTIS. Citation from NOGAP.
OORD

The Arctic cod, Boreogadus saida (Lepechin), is one of the most important organisms in the food chain of the Canadian Arctic seas. Because of this importance, the possible effects of oil spills on it are of concern. This report summarizes the current state of knowledge of the biology and distribution of the Arctic cod, including taxonomy, geographic distribution with seasonal variations, life cycle, diet, predators and association with ice. (NOGAP)

I-281212

Second cumulative data report of studies to determine whether the condition of fish from the lower Mackenzie River is related to hydrocarbon exposure / Freshwater Institute (Canada). Lockhart, W.L. Metner, D.A. Murray, D.A.J. Danell, R.W. Billeck, B.N. Baron, C.L. Muir, D.C.G. Chang-Kue, K. Canada. Dept. of Fisheries and Oceans [Sponsor]. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Winnipeg, Man. : Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, 1987.
vi, 179 p. : ill., map ; 28 cm.
(NOGAP project no. A.12 : Contaminants in the aquatic environment and quality of food species)
Appendices.
References.
ACU

The study continues an investigation of whether deterioration in fish quality, specifically livers in burbot and whitefish flesh, has an objective, measureable basis, and could be related to oil industry operation at Norman Wells. The study concluded that the cause of the liver condition is unlikely to be exposure to petroleum hydrocarbons, although this was not ruled out conclusively. The study noted contamination of Mackenzie River fish with low levels of several compounds, notably toxaphane, chlordane, and PCBs. The northern whitefish had higher water content and lower fat content than most other whitefish. (Au)

I-291870

Distribution of bowhead in the southeast Beaufort Sea, September 1986 / University of Alberta. Hardwood, L.A. PN Research Projects. Norton, P. Canada. Dept. of Indian Affairs and Northern Development [Sponsor]. United States. Dept. of the Interior [Sponsor].
Sidney, B.C. : P.N. Research Projects ; Edmonton, Alta. : University of Alberta, 1986.
v, 16 p. : ill. ; 28 cm.
(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)
Appendix.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

Since 1980, the effects of offshore oil and gas exploration on bowhead whales summering within, and migrating through, the Beaufort Sea have been examined. A systematic aerial survey was conducted to monitor the distribution of bowhead in the southeast Beaufort Sea and document the timing and location of the 1986 migration through Alaska waters. Estimated number of bowhead in the region was 2590, congregated in three areas. Data suggests a large-scale movement of bowhead probably did not begin until after the survey had been completed. (NOGAP)

I-291889

Zooplankton and bowhead whale feeding in the Canadian Beaufort Sea, 1986 / LGL Limited, Environmental Research Associates. Bradstreet, M.S.W. Thomson, O.H. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
(Bowhead whale food availability characteristics in the southern

Beaufort Sea : 1985 and 1986. Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 50, p. 1-204, ill., maps)
(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)
ISBN 0-662-159357.
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN, ACU

A study of the physical and oceanographic factors influencing zooplankton distribution and availability to bowhead during the summer period. Zooplankton biomass was found to be highest in water unaffected by the Mackenzie River plume. Bowhead avoided these plume areas and fed in areas with zooplankton concentrated into dense subsurface layers where winds induced upwelling of Arctic Ocean water. (NOGAP)

I-291935

Reproduction in the bowhead whale, summer 1985 / LGL Limited, Environmental Research Associates. Davis, R.A. Koski, W.R. Miller, G.W. McLaren, P.L. Evans, C.R. Standard Alaska Production Company [Sponsor]. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
King City, Ont. : LGL Limited, 1986.
xxvi, 176 p., 6 p. of plates : ill. (some col.) ; 28 cm.
(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

Much of the bowhead whale research has addressed population size and the effects of offshore industrial development. Less is known about population numbers as affected by reproduction and recruitment. This study determined gross annual reproduction rates of the Western Arctic bowhead population. Data was obtained through aerial photography. The field program was hampered by pack ice and poor weather conditions and annual rates of reproduction were estimated from the animals photographed. Calculations suggest that the reproduction rate of bowhead is higher than previously thought. (NOGAP)

I-291951

Distribution, relative abundance and behaviour of ringed seals in the Beaufort Sea during late summer and fall 1986 / University of Alberta. Harwood, L.A. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Edmonton, Alta. : University of Alberta, 1987.
iv, 28 p. : ill. ; 28 cm.
(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This project focused on natural history, distribution, abundance and ecology of ringed seal during the open water period. The findings are based primarily on data collected during systematic aerial surveys. The study investigated the potential effects of icebreaking activity on ringed seal pup activity; the indirect effects of ice breaking on the stability and integrity of ice in seal breeding areas; and, the cumulative effects of vessel, seismic, dredging, aircraft and drilling platform activity on the energy balance of seals. (NOGAP)

I-291960

Continuing studies of the eastern arctic bowhead whale at Isabella Bay, Baffin Island, 1986 / LGL Limited, Environmental Research Associates. Finley, K.J. World Wildlife Fund (Canada) [Sponsor]. Canada. Dept. of Fisheries and Oceans [Sponsor]. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Sidney, B.C. : LGL Limited, 1987.
vii, 95 p. : ill. ; 28 cm.
(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

Much has been learned during the first three years of studying this relatively unknown concentration of arctic bowhead whales. Field research continued in 1986 on biology and behavior of the bowhead, specific habitat use patterns, population dynamics, and factors affecting survival and recovery. Although persistent poor weather interfered with conduct of field research, aerial surveys confirmed that bowhead using Isabella Bay are almost exclusively adults. Various shifts in feeding patterns and location were also observed and investigated. (NOGAP)

I-291978

Heavy metal and organic contaminants in arctic marine fish / Freshwater Institute (Canada). Muir, D. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Ottawa : DIAND, 1986.
iii, 64 p. : ill. ; 28 cm.
(NOGAP project no. A.12 : Contaminants in the aquatic environment and quality of food species)
ISBN 0-662-15210-7.
Appendix.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This report provides preliminary baseline data on contaminants in arctic marine fishes and serves to assess problems associated with increased industrialization. Marine fish tissue from seven locations were analyzed for heavy metals and other contaminants. With the exception of high cadmium levels in certain marine species, heavy metals were present at lower concentrations than found in northern freshwater species. A considerable variation in metal concentrations between fishes was noted, though no major geographical trends in these levels were evident. (NOGAP)

I-291994

Porcupine caribou harvest by Canadian users, June 1986 – December 1986 / Quock, R. Carey, J. Yukon Territory. Dept. of Renewable Resources [Sponsor]. Canada. Dept. of Indian Affairs and Northern Development.
Whitehorse, Y.T. : Dept. of Renewable Resources, 1987.
7 leaves : ill. ; 28 cm.
(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

Information on the Porcupine herd is required to assess the impact of increased hunting pressure as a result of improved access. Harvest data is used to manage wildlife and for cooperative management among users. Reported here is the estimated 1986, June – December harvest of caribou by Canadian users. 1985 data is presented for comparison. Statistics were gathered through field interviews, check station questionnaires and declaration forms. (NOGAP)

I-292168
Survey of benthic infauna at Beaufort Sea shorebase sites / Sackman, T. Canada. Environmental Protection Service (Northwest Region).
Yellowknife, N.W.T. : Environment Protection Service, 1987.
iv, 39 p. : ill. ; 28 cm.
(NOGAP project no. C.03 : Point source impact monitoring techniques – marine benthic environment)
Appendix.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYEEP

This project, initiated in 1982, identifies and monitors impacts of industrial development on the Tuktoyaktuk Peninsula. Benthic infauna samples were collected and compared with various locations in 1982 and 1984. Attention focussed on McKinley Bay, Hutchinson Bay and Tuktoyaktuk Harbour. Dominant species and numbers appeared to differ widely between these locations. (NOGAP)

I-292176
The Tuktoyaktuk Harbour benthic biological monitoring programme / Seakem Oceanography Ltd. Canada. Environment Canada [Sponsor].
Sidney, B.C. : Seakem Oceanography Ltd., 1987.
1 v. (various pagings) : ill. ; 28 cm.
(NOGAP project no. C.03 : Point source impact monitoring techniques – marine benthic environment)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYEEP

The first of three sampling surveys are reported here. These assessed the effects of chronic contaminant inputs into the harbor on benthic fauna and methods of studying effects suitable for wider application. Preliminary results indicate that both the starry and arctic flounders are under stress. The arctic flounder had greater incidence of degenerating, preneoplastic or neoplastic lesions. The exposure to petroleum is further supported by the presence of PAH metabolites. (NOGAP)

I-292214
Preliminary assessment of the effects of the proposed gas pipeline and other hydrocarbon development projects on waterfowl of the northern Mackenzie Valley / Boothroyd, P. Canadian Wildlife Service [Sponsor].
Manitoba : Canadian Wildlife Service, 1987.
vii, 112 p. : ill. ; 28 cm.
(Canadian Wildlife Service. Western and Northern Region. Technical report series, no. 22)
(NOGAP project no. C.07 : Migratory bird disturbance, assessment and management)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEECW, OOFF

This study collected seasonal data on waterfowl densities along the proposed mainline and lateral pipeline routes to determine potential impacts on waterfowl. Aerial surveys were conducted along the proposed routes. The highest bird density occurred in the northernmost segment of the main pipeline route, particularly Richards Island. The study makes recommendations for the protection of waterfowl populations and important habitat. (NOGAP)

I-292222
Breeding bird survey of coastal islands of the outer Mackenzie Delta and northern Tuktoyaktuk Peninsula, 1987 / Canadian Wildlife Service. Alexander, S.A. Hawkings, J.S.
[Edmonton], Alta. : Canadian Wildlife Service, 1988.
iv, 20 p. : ill. ; 28 cm.
(Canadian Wildlife Service. Western and Northern Region. Technical report series, no. 39)
(NOGAP project no. C.07 : Migratory bird disturbance, assessment and management)
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEECW, OOFF

Helicopter surveys for colonial nesting birds on islands along the Beaufort coast were conducted in June 1987 to corroborate with other studies. The number and locations of nests of glaucous gulls, common eider, king eider, brants, sabine gulls, arctic terns and oldsquaw are noted. (NOGAP)

I-292230
Fall migration and staging of phalaropes and other waterbirds in the vicinity of Nunaluk Spit, Yukon Territory, 1987 / Ealey, D.M. Alexander, S.A. Croft, B. Canadian Wildlife Service.
[Edmonton], Alta. : Canadian Wildlife Service, 1988.
ix, 69 p. : ill. ; 28 cm.
(NOGAP project no. C.07 : Migratory bird disturbance, assessment and management)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEECW

This study examined the importance of Nunaluk Spit to phalaropes and gathered information on the pre-migratory and migratory activities of all water-associated birds in the area. Ground surveys were regularly conducted along the spit, and aerial surveys were conducted along the coastline. Habitat use and distribution of birds were documented. Sixty-eight species were observed during the study. (NOGAP)

I-292249
Key areas of birds in coastal regions of the Canadian Beaufort Sea / Canadian Wildlife Service. Alexander, S.A. Barry, T.W. Dicksen, D.L. Prus, H.D. Smyth, K.E.
2nd edition.
Edmonton, Alta. : Canadian Wildlife Service, 1987.
vi, 152 p. : 28 cm + atlas (9 p. : map ; 28 x 42 cm).
(NOGAP project no. C.07 : Migratory bird disturbance, assessment and management)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEECW

The object of this project was to develop a series of maps which identify the key areas for birds along the Beaufort Sea coast. This atlas was primarily designed to enable quick responses in the event of an oil spill in the Beaufort Sea region. The region covered by this atlas extends east along the Beaufort Sea coast from the Alaska/Yukon border to the Bathurst Peninsula. Emphasis was on the nearshore waters and the land below the storm tide level. Information on birds using offshore and above the storm tide line land are also reviewed and summarized. A four color code system was developed to highlight which areas were most important to bird species. (NOGAP)

I-292257
Shorebirds of the outer Mackenzie Delta – Richard Islands [sic] area 1985-1986 / Dickson, H.L. Smith, A.R. Canadian Wildlife Service.
Saskatoon, Sask. ; Edmonton, Alta. : Canadian Wildlife Service, 1987.
185 p. : ill. ; 28 cm.

(NOGAP project no. C.07 : Migratory bird disturbance, assessment and management)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEECW

This study reports on the distribution, abundance and habitat requirements of arctic-breeding shorebirds species. Data on the shorebirds was gathered from the outer Mackenzie Delta and Richards Island area in 1985 and 1986 with emphasis on selected species. Landsat analysis was conducted in conjunction with ground vegetation and bird data. Results indicate that Landsat is capable of identifying the shorebird staging and nesting areas. (NOGAP)

I-292265
The summer ecology of the Porcupine caribou herd in northern Yukon / Canadian Wildlife Service. Russell, D. Nixon, W.
Whitehorse, Yukon : Canadian Wildlife Service, 1988.
v, 152 p. ; 28 cm.
(NOGAP project no. C.09 : Porcupine caribou summer range)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, YWEEP

The object of this study was to define and identify critical caribou habitat in northern Yukon to better predict impact of human activity. The study investigated vegetation complexes, insect activity and regional weather patterns. It also assessed caribou efforts to minimize harassment, documented activity budgets, habitat selection and food habits. These factors were them used to explain movement and behaviour of the herd during the summer period. (NOGAP)

I-292451
Population ecology, range use and movement patterns of Dall sheep in the northern Richardson Mountains / Barichello, N. Carey, J. Jingforz, K. Yukon Territory. Dept. of Renewable Resources [Sponsor].
Whitehorse, Y.T. : Dept. of Renewable Resources, 1987.
viii, 125 p. : ill. ; 28 cm.
(NOGAP project no. G.14 : Northern Richardson Dall sheep investigations)
Appendix.
References.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

To assess the impact of an overland transportation route, baseline information is needed on Dall sheep ecology, range and seasonal patterns. The study found populations abundant and healthy. The animals use a core area year round and several other areas seasonally. The study concluded that hunting of full curl rams would not jeopardize the population but hunting of 3/4 curl may be detrimental. A conservative harvest rate and a restriction of human activities in areas of critical importance is recommended. (NOGAP)

I-292460
The status and life history of the Porcupine caribou herd 1983 / Urguhart, D.R. Yukon Territory. Dept. of Renewable Resources [Sponsor].
Whitehorse, Y.T. : Dept. of Renewable Resources, 1983.
iii, 78 p. : ill. ; 28 cm.
(NOGAP project no. G.16 : Impacts of oil and gas-related activities on caribou)
References.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

A readable encyclopedia of Porcupine Caribou information to be used by those involved with research management, as a reference for particular topics, and as a detailed account. Originally written in 1983, this report has recently been redrafted and the population section updated. The background information is current to 1983. (NOGAP)

I-292575
Environmental atlas for Beaufort Sea oil spill response – human use sensitivity categories : summary report on a workshop conducted in Inuvik, January 1987 / Erickson Associates. Northwest Territories. Dept. of Renewable Resources [Sponsor].
Victoria, B.C. : Erickson Associates, 1987.
5 p. : ill. ; 28 cm.
(NOGAP project no. H.04 : Renewable Resources hydrocarbon development impact and planning guidelines)
Appendix.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This workshop was sponsored by COPE, NOGAP and the Beaufort Mackenzie Delta DIZ Society to develop maps of areas and species used in renewable resources harvesting activities. The data has been compiled in atlas form by Environment Canada to facilitate oil spill clean-up activities. (NOGAP)

I-292591
Feasibility of using remote sensing to identify potential breeding habitat of falcons in the NWT / Wakelyn, L.A. Northwest Territories. Dept. of Renewable Resources [Sponsor].
Yellowknife, N.W.T. : Dept. of Renewable Resources, 1987.
xi, 103 p. : ill. ; 28 cm.
(NOGAP project no. H.16 : Renewable Resources baseline information for wildlife populations affected by hydrocarbon development)
Progress report.
Appendix.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

Habitat requirements of peregrine falcons could not be identified through visual interpretation and digital classification of Landsat prints. It was found, however, that habitat for rock ptarmigan, the principal prey of gyrfalcons in the Melville Sound area, could be identified using this technique and digital image enhancements. The report concludes that identification of falcon breeding habitat in both areas using Landsat imagery was equal to that obtained by interpreting topographic maps. (NOGAP)

I-292605
Assessment of the polar bear population in the eastern Beaufort Sea / Canadian Wildlife Service. Stirling, I. Andriashek, D. Spencer, C. Derocher, A. Northwest Territories. Dept. of Renewable Resources.
Edmonton, Alta. : Canadian Wildlife Service, 1987.
300 p. : ill. ; 28 cm.
(NOGAP project no. H.16 : Renewable Resources baseline information for wildlife populations affected by hydrocarbon development)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

The present polar bear population size and vital parameters are discussed. The results of the data collected were compared to earlier data from studies in the 1970's. In 1985 and 1986, 406 individual bears were tagged. Movement data indicates a separation of population along

the mainland coast from that on the west coast of Banks Island and Amundsen Gulf. Preliminary estimates of population size in the study area were lower, though probably not significantly so, than estimates made in the late 1970's. This study also offers general observations on the effects of offshore hydrocarbon exploration and production. (NOGAP)

I-293555

Arctic data compilation and appraisal : Volume 19 : Northwest Passage : Biological oceanography – pinnipeds 1834 to 1985 / Hardwood, L.A. PN Research Projects. Norton, P. Freshwater Institute (Canada). de March, L. Institute of Ocean Sciences, Patricia Bay. Smiley, B.D. Canada. Dept. of Fisheries and Oceans [Sponsor].

[Winnipeg, Man. : Freshwater Institute], 1988.

8 microfiches : ill., maps ; 11 x 16 cm.

(Canadian data report of hydrography and ocean sciences, no. 5)

(NOGAP project no. B.12 : DFO participation in MEMP and BEMP)

Also available on paper.

Appendix.

References.

ACU

This data report includes a catalogue of measurements made on pinnipeds (seals and walruses) in the Northwest Passage region and adjacent marine waters. In total, 159 studies were catalogued, spanning the period from 1834 to and including 1985. The catalogue comprises three main tables followed by supporting figures and indices. The tabulations include the following: general study parameters, species, specific measurements, concurrent biological, chemical, and physical measurements, details on sampling intensity and study methods, appraisal of study methods, and specific times and locations where sampling was conducted. More than 70% of the studies in the catalogue were conducted between 1970 and 1985, and approximately 40% of the data sets included Barrow Strait and/or Lancaster Sound within study area boundaries. Thirteen different study methods were identified, and these were used to make 124 different types of measurements. The most common methods were shore watches and reconnaissance surveys from the air and ice. The species most commonly studied were ringed seals, bearded seals, and walrus; hooded seals and harp seals were reported at certain times of the year. (Au)

I-299529

Spring sightings of narwhal and beluga calves in Lancaster Sound, N.W.T. / Cosens, S.E. Dueck, L.P. Canada. Dept. of Fisheries and Oceans.

(Arctic, v. 43, no. 2, June 1990, p. 127-128, 1 map)

(NOGAP project no. B.01 : Effects of vessel noise and traffic on arctic marine mammals)

References.

ACU

During aerial surveys in 1986 of whales migrating in Lancaster Sound, we observed newborn narwhals as early as 27 May and regularly thereafter. Beluga calves were first seen on 31 May and were seen sporadically throughout the study period. These observations represent the earliest reported sightings to date of newborn narwhals. (Au)

I-308480

Studies to determine whether the condition of fish from the lower Mackenzie River is related to hydrocarbon exposure / Lockhart, W.L. Metner, D.A. Murray, D.A.J. Danell, R.W. Billeck, B.N. Baron, C.L. Muir, D.C.G. Chang-Kue, K. Canada. Dept. of Indian Affairs and Northern Development.

Ottawa : Canada. Dept. of Indian Affairs and Northern Development, 1989.

vii, 84 p. : col. ill., maps ; 28 cm.

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 61)

ISBN 0-662-16849-6.

References.

OORD

This report was produced in response to complaints from northern people, principally residents of Fort Good Hope, that the quality of fish from the Mackenzie River had deteriorated. The liver of burbot was reported to have become small and dark in colour, with the result that people would no longer eat them. The muscle of whitefish was reported to have become excessively "watery" with the result that these fish were less palatable than in the past. Since the incidence of these complaints was coincident with operations to expand oil production at Norman Wells, this investigation was focused on the question of whether pollution from Norman Wells (oil) could be responsible for the deterioration in the quality of the fish. (Au)

I-308498

Patterns and trends in the domestic fishery in and near the Mackenzie River watershed : A synthesis of a survey of fish users in Dene and Metis communities / Rawson Academy of Aquatic Science. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Ottawa : Canada. Dept. of Indian Affairs and Northern Development, 1990.

xiii, 81 p. : ill., 1 map ; 28 cm.

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 66)

ISBN 0-662-18104-2.

References.

OORD

During construction of the Norman Wells pipeline (1982-85), concern was raised by domestic fishermen about the quality of fish caught in the Mackenzie River, N.W.T. Fishermen reported catching fish with external lesions and internal abnormalities which raised questions about the safety of this traditional food supply. As one of several federally initiated studies to investigate the causes and impacts of fish abnormalities, DIAND initiated the present study to assess the state of domestic fisheries and examine the potential socio-economic impacts of the fish abnormalities. (Au)

I-309419

A collection of Amphipoda from the southern Beaufort Sea / Keast, M.A. [Editor]. Lawrence, M.J. [Editor]. Freshwater Institute (Canada).

Winnipeg, Man. : Freshwater Institute (Canada), 1990.

vi, 114 p. : ill. ; 28 cm.

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

(Canadian data report of fisheries and aquatic sciences, no. 799)

Appendices.

References.

Glossaries.

This is the 46th Data Report from the Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, Winnipeg.

MWFW, ACU

This report provides descriptions, with drawings, of benthic and pelagic amphipods of two suborders (Hyperiidea and Gammaridea). The amphipods came from collections made by DFO in the coastal waters

of the southern Beaufort Sea. (Au)

I-309435

A guide to identification of Decapoda, Euphausiacea, and Mysidacea from the southern Beaufort Sea / Keast, M.A. [Editor]. Lawrence, M.J. [Editor]. Freshwater Institute (Canada).

Winnipeg, Man. : Freshwater Institute (Canada), 1990.

v, 61 p. : ill. ; 28 cm.

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

(Canadian manuscript report of fisheries and aquatic sciences, no. 2047)

Appendix.

References.

Glossary.

This is the 13th Manuscript Report from the Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, Winnipeg.

MWFW, ACU

Presented is a guide to three eumalacostracan orders, (Decapoda, Euphausiacea and Mysidacea), from the southern Beaufort Sea, and its coastal embayments. The guide subdivided into order, family, genus and species is artificial and dichotomous in design. Illustrations, references and species descriptions are included. (Au)

I-309443

A guide to identification of benthic Isopoda from the southern Beaufort Sea / Lawrence, M.J. Keast, M.A. Freshwater Institute (Canada).

Winnipeg, Man. : Freshwater Institute (Canada), 1990.

v, 76 p. : ill. ; 28 cm.

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

(Canadian manuscript report of fisheries and aquatic sciences, no. 2048)

References.

Glossary.

This is the 12th Manuscript Report from the Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, Winnipeg.

MWFW, ACU

A guide to sixteen species of benthic isopods from the southern Beaufort Sea, including its coastal embayments is presented. Four suborders, the Asellota, Gnathiidea, Valvifera, and Epicaridea are discussed. The guide, subdivided into suborder, family, and species, is artificial and dichotomous in design. Illustrations, references, and species descriptions are included. (Au)

I-309559

Fish and fisheries of the Mackenzie and Churchill River basins, northern Canada / Bodaly, R.Z. Reist, J.D. Rosenberg, D.M. McCart, P.J. Hecky, R.E. Freshwater Institute (Canada).

(NOGAP project no. B.03 : Critical western arctic freshwater habitats)

(Proceedings of the International Large River Symposium / Edited by D.P. Dodge. – [S.l. : s.n.], 1989, p. 128-144, ill., maps)

References.

OORD

The Mackenzie and Churchill rivers drain 18,000,000 sq km and 300,000 sq km, respectively, of subarctic and arctic Canada. Mean annual precipitation in the basins is low, usually <500 mm. The ice-free season lasts for approximately 4-8 months. Low rates of phytoplankton primary production (<4-80 g C/m/yr) are due to light limitation caused by high suspended sediment loads, by the long period of ice and snow cover, and by low nutrient levels (e.g. total dissolved P 0.2-2.3 micro meters/L). Knowledge of secondary productivity is limited mainly to commercial fish yields. The fish faunas of the Mackenzie and Churchill basins are relatively simple: 53 species are native to the Mackenzie and 39 to the Churchill. The faunas are dominated by salmonids and cyprinids. Migratory behavior is characteristic of many of the fish species of importance to fisheries, especially in the Mackenzie basin, where it is often associated with one of the three major delta areas in the basin. Commercial and subsistence fisheries coexist throughout much of both river basins, but most commercial fishing takes place in the Churchill basin and the southern portions of the Mackenzie basin, near to southern Canadian and export markets. Fisheries management activities in the basins are often hampered by a number of factors. The magnitude of the catch for many commercial and most domestic fisheries is unknown and knowledge of the genetic population structure of species under exploitation is inadequate. Although high standing stocks of large fish are often present, they usually have relatively low rates of biological production. Migratory behaviour tends to concentrate fish temporally and spatially, making such populations vulnerable to multiple stresses, including fisheries, during their life cycles. Although only a moderate amount of industrial activity has taken place in the Mackenzie and Churchill basins, there has been extensive disruption of aquatic systems in the Churchill basin by hydroelectric development. Hydroelectric development will be increasingly important in the future in the Mackenzie basin. (Au)

I-309567

Life history characteristics of migratory coregonids of the lower Mackenzie River, Northwest Territories, Canada / Reist, J.D. Bond, W.A. Freshwater Institute (Canada).

(NOGAP project no. B.03 : Critical western arctic freshwater habitats)

(Finnish fisheries research, no. 9, 1988, p. 133-144, ill., maps)

References.

Five coregonid species occurring in the lower Mackenzie River Basin, Northwest Territories, Canada, are important in fisheries: Coregonus nasus (broad whitefish), C. clupeaformis complex (lake whitefish), C. sardinella complex (least cisco), C. autumnalis (Arctic cisco), and Stenodus leucictbys (inconnu). The degree of anadromy, length of migration and other life history traits differ among the species complicating management of them. Management problems include: (1) international implications resulting from migrations; (2) competing resource users fishing the same species at different locations; (3) intense localized impacts (fisheries and industrial) on migratory riverine populations passing through geographically restricted corridors; (4) several life history types present with unknown contribution to the impacted population(s); and, (5) population structuring into distinct genetic stocks that exhibit different life-history patterns and use different habitats. (Au)

I-309583

The abundance of narwhal (Monodon monoceros L.) in Admiralty Inlet, Northwest Territories, Canada, and implications of behaviour for survey estimates / Dueck, L.P. Canada. Dept. of Fisheries and Oceans [Sponsor].

Winnipeg, Man. : University of Manitoba, 1989.

81 p.

(NOGAP project no. B.01 : Effects of vessel noise and traffic on arctic marine mammals)

Thesis (M.Sc.) – University of Manitoba, Winnipeg, Man., 1989.

Document not seen by ASTIS. Citation from NOGAP.

MWU

The diving behavior of narwhal (Monodon monoceros) in Admiralty Inlet, Northwest Territories was investigated using scan and focal-animal sampling techniques in order to determine the proportion of

narwhal out-of-sight during aerial photographic surveys. Observations were conducted between late June and early July in 1983 to 1985 from shore and ice-based sites and during helicopter flights. Three categories of behavior were used: directional movement, surface activity, and deep dives. Directional movement was most frequently observed during pre-breakup, early-breakup, and open water periods, followed by surface activities and deep dives. During late-breakup, surface activities were most frequent. The behavior of narwhal was highly variable as indicated by significant differences in the frequency of all three behavioral categories between periods of breakup, observation sites, times of day, and tide categories. There was no significant difference in mean surface time between pre-breakup, late-breakup and open water periods (mean=121 sec, S.D.=118 sec, n=236), although surface time during early-breakup (mean=182 sec, S.D.=269 sec, n=159) was significantly greater than all other periods. There was no significant difference in mean deep dive time between pre-breakup and early-breakup periods (mean=195 sec, S.D.=165 sec, n=25) but no deep dives were timed during late-breakup and only one (195 sec) was timed during the open water period. There were significant differences in both mean surface time and deep dive between observation sites for the early-breakup period, possibly reflecting the constraints of movement through different ice conditions. The estimated proportion of narwhal visible, based on mean surface and deep dive durations was 38% for pre-breakup, late-breakup and open water periods and 48% for early-breakup. The range in proportion of animals visible based on 95% confidence intervals of surface and deep dive times was 0.29 to 0.52 for pre-breakup, late-breakup and open water periods and 0.34 to 0.64 for early-breakup. The abundance of narwhal in Admiralty Inlet during the open water period in 1983-1985 was investigated with aerial photography using a systematic transect sampling design. The estimated number of narwhal visible at the surface was 2306 (95% C.I. of 1244-4277) in 1983, 5220 (95% C.I. of 3104-8780) in 1984, and 5619 (95% C.I. of 2819-11,200) in 1985. Important areas of distribution appeared to be the west side of Admiralty Inlet between Strathcona Sound and Yeoman Island and the mouths of Adams and Strathcona Sound. The increase in estimates each year corresponded with earlier breakup of ice in Lancaster Sound although differences in survey coverage may be partially responsible for observed differences in estimated numbers. Based on the estimated proportion of narwhal visible during the open water period, a correction factor of 1.9 to 3.4 is indicated, suggesting that estimated numbers should be at least doubled to account for animals out-of-sight. Caution in the use of this factor is recommended however, because of the potential biases involved in behavioral observations. (Au)

I-309613

Non-consumptive wildlife use on the Yukon north slope / Talarico, D. Mossop, D. Yukon Territory. Dept. of Renewable Resources.

[Whitehorse, Y.T.] : Dept. of Renewable Resources, 1988.

1 v.

(NOGAP project no. G.10 : Herschel Island Territorial Park planning)

References.

Contents: Part 1: The effects of wildlife viewing: tourism and birds in Herschel Island Territorial Park / D. Talarico, D. Mossop – Part 2: Bird watching enterprise: pilot trip on Yukon North Slope / D. Mossop and D. Talarico.

Document not seen by ASTIS. Citation from NOGAP.

YWA, OORD

This report examines the effects of wildlife viewing: Tourism and Birds in Herschel Island Territorial park and Bird Watching enterprise: pilot trip on Yukon North Slope. (NOGAP)

I-309630

Raptor population inventory and management planning (north slope) : Interim report / Mossop, D. Ward, R. Talarico, D. Yukon Territory. Fish & Wildlife Branch.

[Whitehorse, Y.T.] : Yukon Territory, Fish & Wildlife Branch, 1986.

[26] p. ; 28 cm.

(NOGAP project no. G.17 : Raptor management plan for the Yukon north slope)

YWA, OORD

Initial inventory and planning for the management of raptors on the Yukon North Slope has been an ongoing project since the early 1970's. In the interim, much of the area drained by streams of the Beaufort Sea have been covered in initial intensive surveys (see Platt 1975; Mossop and Hayes 1976, 1977, 1978, 1979, 1980). As well, various management options have been investigated including reintroduction of an extirpated species (see Peregrine Falcon Recovery project, this report) and harvest of the gyrfalcon, primarily for commercial reasons (Mossop and Hayes, 1981). The remaining task has been to complete the inventory but more importantly, to draw together all the work that has been done into a comprehensive analysis of raptor populations and an overall management plan for the future of these birds. A grant from Northern Oil and Gas action Program (NOGAP), a federal/territorial funding agreement has made the present task possible. Difficult accessibility of the Yukon North Slope has been the factor limiting human use in the area. With the development of the North Yukon National Park and the Herschel Island Territorial Park, more human activity is expected in the North Slope area. Other options for this area include wilderness tourism, industrial site development and corridor transportation development. In the near future, activities associated with the oil and gas industry (both exploration and production) are the most likely industrial developments to occur. Although management planning recognizes all North Slope activities, it has prioritized petroleum development activities as its main concern. (Au)

I-309699

Computer simulation models of the Porcupine caribou herd : I. energy / Kremsater, L.L. Hovey, F.W. Russell, D.E. White, R.G. Bunnell, F.L. Martel, A.M. Canadian Wildlife Service. Pacific and Yukon Region [Sponsor].

[S.l.] : Canadian Wildlife Service, Pacific and Yukon region, 1989.

[57] leaves : ill. ; 28 cm.

(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)

(NOGAP project no. C.09 : Porcupine caribou summer range)

(Canadian Wildlife Service. Pacific and Yukon Region. Technical report series, no. 53)

Appendices.

References.

Partial contents: PC simulator : version 2.0 / F.W. Hovey.

OORD, NWYEEP, OOF

Research and monitoring of the Porcupine caribou herd have been conducted almost continuously since the early 1970's. As more information is gathered it becomes increasingly difficult to integrate and apply that information to complex questions regarding effects on the herd from human activities and developments. The Porcupine Caribou Technical Committee, therefore, requested that individuals involved in research and management of the herd develop computer simulation models to aid in evaluating the present data, to help guide future research, and to provide some insights into the potential impact of alternate development scenarios. To this end the Canadian Wildlife Service contracted a group from the Faculty of Forestry, University of British Columbia, to help facilitate a number of workshops and to program the agreed upon models. From these discussions, three models were proposed. By order of increasing iteration time these models are: an Energy model which simulates the energic relations of an individual and predicts the metabolizable energy intake (MEI) on a daily basis; a growth model that incorporates the resultant MEI and projects the weight gain and loss throughout the year; and a harvest model that simulates the demographics of the herd over a number of years. The models incorporate a simulation supervisor program that was adapted to microcomputers (Microsimcon), allowing efficient and user-friendly access while exercising the models. All coding is done in Basic using a

"Quick Basic" compiler. All users of the models will require an IBM compatible computer with graphics capability. This publication represents Version 1 of the models. Updates, executable files and other information on the model are available from D.E. Russell, Canadian Wildlife Service, Whitehorse. (Au)

I-309702

Computer simulation models of the Porcupine caribou herd : II. growth / Hovey, F.W. Kremsater, L.L. White, R.G. Russell, D.E. Bunnell, F.L. Canadian Wildlife Service. Pacific and Yukon Region [Sponsor].
Whitehorse, Y.T. : Canadian Wildlife Service, 1989.
[34] leaves : ill. ; 28 cm.
(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)
(NOGAP project no. C.09 : Porcupine caribou summer range)
(Canadian Wildlife Service. Pacific and Yukon Region. Technical report series, no. 54)
ISBN 0-662-16693-0.
Appendices.
References.
Partial contents: PC simulator, version 2.0 / F.W. Hovey.
OORD, NWYEEP, OOF

The growth of an individual caribou is simulated on a daily time period over 15 life cycle periods of the Porcupine caribou herd. In this model input variables (metabolizable energy intake [from energy model], activity budgets, snow depths, etc.) are incorporated to simulate the growth of a female and her calf. The present model is one of three models, energy, growth and harvest, that were developed at the request of the Porcupine Caribou Technical Committee. The models run on IBM compatible microcomputers that have graphics capability. The supervisor program, Microsimcon, is incorporated into each model to assist in exercising the models. (Au)

I-309710

Computer simulation models of the Porcupine caribou herd : III. harvest / Hovey, F.W. Russell, D.E. Bunnell, F.L. Farnell, R. Whitten, K.R. Canadian Wildlife Service [Sponsor].
[S.l.] : Canadian Wildlife Service, 1989.
[20] leaves : ill. ; 28 cm.
(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)
(NOGAP project no. C.09 : Porcupine caribou summer range)
(Canadian Wildlife Service. Pacific and Yukon Region. Technical report series, no. 55)
ISBN 0-662-16694-9.
Appendices.
References.
Partial contents: PC simulator, version 2.0 / F.W. Hovey.
OORD, OOFF, NWYEEP

The population dynamics of the Porcupine caribou herd are presented within the structure of a computer simulation model. Population parameters are updated on an annual basis while the dynamics within the model occur over five life cycle periods. The details and dynamics of community harvests on the herd are particularly stressed. The present model is one of three models, energy, growth and harvest, that were developed at the request of the Porcupine Caribou Technical Committee. The models run on IBM compatible microcomputers that have graphics capability. The supervisor program, Microsimcon, is incorporated into each model to assist in exercising the models. (Au)

See also: B-207705, B-292184, H-210030, J-207608, J-207942, L-207349, L-291919, L-291927, Q-210366, Q-210374, U-207772, U-207837, U-299707, U-308838, U-308889, U-308943, U-308951, U-309087, U-309109, U-309133, U-309184, U-309206, U-309214, U-309273, U-309281, U-309320, U-309338, U-309346, U-309354, U-309370, U-309648, X-190314, X-195499, X-287709, X-308501, X-309389.

J – ECOLOGY – Includes Environmental Protection.

J-207390

Mackenzie environmental monitoring project 1985/86 final report / LGL Limited, Environmental Research Associates. ESL Environmental Sciences Limited. Environmental and Social Systems Analysts Ltd. P.J. Usher Consulting Services. Canada. Dept. of Indian Affairs and Northern Development [Sponsor]. Canada. Environment Canada [Sponsor]. Northwest Territories [Sponsor]. Yukon Territory [Sponsor].
[S.l. : s.n.], 1986.
xxviii, 308 p. ; 28 cm.
(NOGAP project no. A.21 : Onshore environmental monitoring and research program)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This report summarizes the results of the first year of the Mackenzie Environmental Monitoring Program (MEMP). The objective of MEMP is to recommend a monitoring and research program that will both address significant potential impacts, based on current understanding of industrial development scenarios and ecological processes, and also have the capability to respond to changing industrial development scenarios and new information regarding ecological processes in the region. The recommended program must be applicable and practical, and be supported with full scientific and technical justification. This first report describes possible effects of developmental uncertainties in regard to predictive capability, recommended research plans and rationale for the recommended studies. Since the nature of the recommendations have been heavily influenced by the methods, a description of the methods used throughout the program is included. Through workshops and technical meetings involving northern residents, government scientists and industry representatives and consultants, 25 impact hypotheses were developed. Conclusions and recommendations are provided for each hypothesis. (Au)

J-207543

Evaluation of selected reclamation studies in northern Canada / Hardy Associates (1978) Limited. Younkin, W. Martens, H. Canada. Indian and Northern Affairs Canada [Sponsor].
Calgary, Alta. : Hardy Associates (1978) Ltd., 1985.
vi, 279 p. : ill. ; 28 cm.
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

Expansion of resource development activity in northern Canada will be accompanied by surface and terrain disturbances requiring stabilization and rehabilitation. Over the past fifteen years, a wide range of studies and trials have been conducted over a broad geographic area. A major goal of this study was to organize, evaluate and summarize selected revegetation information relating to the western Northwest Territories

and Yukon. Revegetation study sites were a mixture of research plots and reclaimed sites. Many of the studies were species and fertilizer trials, although information was also collected on selected impacts such as winter roads and methanol spills and, where available, on the rate of natural recovery. The individual studies have been grouped according to phytogeographic region and study area. The report compiles in summary form all information about each of the selected studies to 1984. A 1984 site assessment, which contains a brief description of site conditions and data collected at that time, is also presented. Conclusions are directed toward current reclamation concerns. Recommendations concern further protection of the sites and further assessment needs. (NOGAP)

J-207608

Research and monitoring priorities for the Department of Fisheries and Oceans (Western Region) in the Canadian Arctic identified at the Habitat Surveys Workshop, Winnipeg, November 1984 / Arctic Laboratories Limited. ESL Environmental Sciences Limited. Thomas, D.J. Duval, W.S. Canada. Dept. of Fisheries and Oceans [Sponsor].

[S.l. : s.n.], 1985.

(NOGAP project no. B.04 : Hydrography, Northwest Passage)

Document not seen by ASTIS. Citation from NOGAP.

OORD, MWFW

This report summarizes the major conclusions reached at a workshop on biological and habitat research and monitoring priorities for the Beaufort Sea and Northwest Passage relevant to NOGAP. Discussions during the workshop primarily concerned effects monitoring and research required to support effects monitoring. Using an iterative approach, priorized lists of research and monitoring topics were developed. A general outline or approach to research and monitoring projects was prepared for the first six research topics and the first five monitoring projects. (NOGAP)

J-207942

Identification of impact indicators for renewable resource harvesting / Fee-Yee Consulting Ltd. DeLancey, D. P.J. Usher Consulting Services. Usher, P. Northwest Territories. Dept. of Renewable Resources [Sponsor].

[S.l.] : Fee-Yee Consulting Ltd. : P.J. Usher Consulting Services, 1986.

49 p. : 28 cm.

(NOGAP project no. H.04 : Renewable Resources hydrocarbon development impact and planning guidelines)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYRR, NWYGI

This report reviews and evaluates the impact hypotheses generated by Mackenzie Environmental Monitoring Program workshops to ensure, to the extent possible, that they are accurate and thorough. It also proposes working definitions for such terms as "harvest", "indicator", "harvester" and "effort", and proposes an initial set of indicators which can be used to assess and monitor impacts of development on renewable resource harvesting. (NOGAP)

J-211354

Method for preliminary assessment of environmental impact / ESL Environmental Sciences Limited. Suval, W.S. Harwood, L.A. Martin, L.C. Smiley, B.D. Canada. Dept. of Fisheries and Oceans [Sponsor].

Vancouver, B.C. : ESL Environmental Sciences Ltd., 1985.

ii, 50 p. : ill. ; 28 cm.

(NOGAP project no. B.06 : Beaufort Sea oceanography)

Appendices.

References.

Second draft, March 1985.

Document not seen by ASTIS. Citation from NOGAP.

OORD

The method described in this report is intended for use as a screening tool to identify the most important environmental concerns associated with a development proposal and relevant questions or information gaps that warrant more detailed evaluation. It is intended for use at the preliminary or initial stage of the review process and is limited to assessments involving biological resources. Some key aspects of this method include application of consistent criteria for assessment, standardization of some commonly used terminology and a list of background information sources for subsequent peer review (audit trail). The population level of biological organization was selected as the basic working unit for this assessment method. To focus the assessment on populations of greatest ecological, economic and social concern, the Valued Ecosystem Components (VECs) concept of Beanlands and Duinker (1983) was adopted. The report describes the seven basic steps which comprise this preliminary impact assessment method. (NOGAP)

J-291862

Beaufort Environmental Monitoring Project 1984-1985 : final report / ESL Environmental Sciences Limited. LGL Limited, Environmental Research Associates. Environmental and Social Systems Analysts Ltd. Arctic Laboratories Limited. Arctic Sciences Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Ottawa : DIAND, 1986.

xxi, 162 p. : ill. ; 28 cm.

(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 39)

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

ISBN 0662-15156-9.

Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

A report on the second year of the Beaufort Environmental Monitoring Project and recommendations for future environmental research. BEMP activities during 1984-85 included: pre-workshop review of studies initiated since December 1983, preparation of project overviews describing the purposes of these investigations and their relationships to existing BEMP hypotheses, and the conduct of a workshop in February 1985. The main body of the report is a review of new information that was found to be relevant to the BEMP impact hypotheses and includes rationale for the specific research and monitoring recommended. (NOGAP)

J-291897

Beaufort Environmental Monitoring Project 1985-1986 : final report / LGL Limited, Environmental Research Associates. ESL Environmental Sciences Limited. Environmental and Social Systems Analysts Ltd. Arctic Sciences Limited. Arctic Laboratories Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Ottawa : DIAND, 1987.

xix, 199 p. : ill. ; 28 cm.

(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 40)

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

ISBN 0-662-15-1807.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

BEMP, initiated in 1983, provides the technical basis for design,

operation and evaluation of a comprehensive environmental research and monitoring program required to accompany phased hydrocarbon development in the Beaufort Sea. The program is primarily oriented toward offshore biological issues. This report of BEMP activities during the third year of the project also contains recommendations for future environmental studies. Primary activities during 1985-86 were: review of relevant studies initiated or completed since Dec. 1984; preparation of project overviews; conduct of a workshop on bowhead whales in early February 1986; review of research on oil-based drilling fluids; and, revision of hypothesis dealing with these fluids. (NOGAP)

J-291900

Beaufort Environmental Monitoring Project 1986-1987 : final report / ESL Environmental Sciences Limited. Seakem Oceanography Ltd. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Ottawa : DIAND, 1987.

ix, 175 p. : ill. ; 28 cm.

(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 52)

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

This document describes the results of two workshops held during the fourth year of the BEMP project and presents a review of recently initiated or completed research projects that are relevant to environmental monitoring. The first workshop dealt with the effects of contaminated cuttings discharge on fish, birds and marine mammals. The second evaluated the effects of hydrocarbon development on bowhead whales. A new impact hypothesis was also formulated to address possible westward transport of oil from the Beaufort region during the open-water season. (NOGAP)

J-292567

Summary of conclusions of the Mackenzie Environmental Monitoring Project / Fee-Yee Consulting Ltd. DeLancey, D. Northwest Territories. Dept. of Renewable Resources [Sponsor].

Yellowknife, N.W.T. : Dept. of Renewable Resources, 1987.

ii, 37 p. : ill. ; 29 cm.

(NOGAP project no. H.04 : Renewable Resources hydrocarbon development impact and planning guidelines)

Appendix.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYGI

The Mackenzie Environmental Monitoring Project (MEMP) was established to identify research and monitoring needs regarding environmental impacts of oil and gas development in the Mackenzie Valley and come up with a practical, flexible monitoring/research program. The results of the MEMP project and final report are summarized and reorganized here. This summary was produced for translation and distribution to the northern communities. (NOGAP)

J-309680

NOGAP programs for IWD in the 1990's : project design summary, Oct. 23-24 workshop proceedings, strategic planning document / Northwind Consultants. Wedel, J.H. Canada. Inland Waters Directorate [Sponsor]. Canada. Environment Canada [Sponsor].

Winnipeg, Man. : Northwind Consultants, 1990.

26, 11, 23 p. ; 28 cm.

(NOGAP project no. C.05 : Environmental monitoring and assessment)

Appendices.

References.

Contents: Project design summary – Proceedings : IWD Strategies Workshop for NOGAP programs in the 1990's – Sediment regime of the Mackenzie Delta : position paper prepared for Workshop on NOGAP programs for IWD-Yellowknife / M.A. Carson and Associates – Inland Waters Directorate's Northern Oil and Gas Action Program for the 1990's : a strategic planning document.

OORD, OOFF, AEEPS, ACU

[Two brief statements about the project design summary and the workshop called by IWD Yellowknife have been extracted from the author's introduction to these subjects]. (1) Project design summary: This document pulls together an array of commentary derived from the IWD strategy paper, from the Carson position paper dealing with the delta sediment regime, and from the proceedings of the IWD, NOGAP workshop held in Yellowknife on October 23 and 24, 1990. The comments which follow are considered to be 'guiding principles' and are used to develop project outlines, NOGAP justifications, and inter-agency linkages in later sections of this summary. ... (2) [IWD strategies Workshop for NOGAP programs in the 1990's held in October 23 and 24, 1990 in Yellowknife, N.W.T.] ... The workshop was called by IWD Yellowknife to review the NOGAP strategic planning document prepared by Northwind Consultants, Winnipeg, and by Carson and Associates, Victoria. Specific workshop focus was on the technical competence of proposed avenues of research, their relevance to NOGAP, and on the concept of work-sharing between IWD and other government agencies. Representatives from EMR, DFO, the Inuvialuit, and the oil and gas industry were unable to attend. Both EMR and industry are keenly interested in the proposed IWD program however, and submitted briefs which are included in this summary. ... (Au)

See also: B-291838, C-291854, C-292001, D-292060, D-309540, E-210455, E-292303, E-292311, E-292338, H-210056, H-292354, I-195260, I-207411, I-207985, I-208817, I-210277, I-210340, I-281212, I-291951, I-291978, I-292168, I-292176, I-292249, I-292575, I-308480, I-308498, I-309559, I-309630, L-207381, L-291919, M-167592, Q-207438, Q-207586, Q-208019, Q-210366, Q-210374, Q-210382, Q-292141, Q-292150, Q-292192, Q-292583, S-207926, S-309621, T-309400, U-309257, U-309273, X-190314, X-195499, X-287709, X-308501, X-309389.

K – MEDICINE, HUMAN PHYSIOLOGY, AND PUBLIC HEALTH

See: R-207853, R-208787.

L – COMMUNICATIONS AND TRANSPORTATION

L-207349

Spring ice breaking operations of the ship MV Arctic and concurrent Inuit hunting in Admiralty Inlet, Baffin Island / FMS Engineers Inc. Strandberg, A.G. Embacher, U. Sagriff, L. Canarctic Shipping Ltd. [Sponsor]. Canada. Indian and Northern Affairs Canada [Sponsor]. Canada. Transport Canada [Sponsor].
Calgary, Alta. : FMS Engineers Inc., 1984.
2 v. (x, 57, [13] p.; 5 p.) : ill. (some col.) ; 28 cm.
(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)
(NOGAP project no. E.05 : Studies to assess and develop arctic navigation systems)
Appendices.
References.
Contents: Volume I: Report, field work and historical search done to evaluate interaction between shipping and hunting traffic while the inlet is ice covered. – Volume II: Appendix C, collection of photographs with explanatory notes about the 1984 field season program.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

In July 1978, Canarctic Shipping Company Limited initiated the use of the MV Arctic to transport lead-zinc concentrate from the Nanisivik Mine on Strathcona Sound, Northern Baffin Island. The first inbound voyage of the MV Arctic through the early summer ice conditions of Lancaster Sound and Admiralty Inlet coincides and can interfere with the narwhal hunt carried out by the Inuit of the Arctic Bay area. During the summer of 1984, a study of the interaction of the ship and the hunting operation was conducted, with the following objectives: (1) to study remote sensing imagery to determine the pre-1978 natural breakup pattern and, for 1978 to 1984, the break-up pattern as influenced by the passage of the MV Arctic (2) to carry out an early summer field study program documenting the interaction of the two groups, measuring results of the ship's ice breaking passage and evaluating any subsequent effect on the ice breakup process; (3) to evaluate recommendations proposed at meetings of those concerned to minimize the shipping route's impact on early summer hunting. (NOGAP)

L-207381

Underice [sic] radiated noise measurements of the icebreaker 'CCGS John A. MacDonald' in Baffin Bay and Lancaster Sound, June 1983 / Greeneridge Sciences, Inc. Green, C.R. Canada. Indian and Northern Affairs Canada [Sponsor].
Santa Barbara, Calif. : Greeneridge Sciences, Inc., 1984.
iv, 31 p. : ill. ; 28 cm.
(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)
Appendix.
Document not seen by ASTIS. Citation from NOGAP.
OORD

In the past few years, interest has grown in year-round marine transportation over routes to high latitude ports in the Canadian Archipelago. Associated environmental concerns include the effects on marine life of noise from icebreaking operations. Few measurement data were available on the levels of hydroacoustic noise from icebreaking. In June 1983 field parties aboard the CCGS John A. MacDonald recorded sounds of icebreaking in both Baffin Bay and Lancaster Sound. This report describes the measurements and the results of one of the two field trips. (NOGAP)

L-207888

Town of Inuvik Navy Road evaluation / Reid, Crowther & Partners. Northwest Territories. Dept. of Municipal and Community Affairs [Sponsor].
Calgary, Alta. : Reid, Crowther & Partners, 1986.
39 leaves : ill., maps ; 28 cm.
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This study evaluates the existing traffic and physical condition of Navy Road and estimates the future load resulting from oil and gas development. It also makes recommendations on upgrading the throughfare to be able to handle the forecast traffic. (Au)

L-207900

Tuktoyaktuk airport relocation and planning study – stage 2 design concept and community plan amendments / Reid, Crowther & Partners. Kyllo Planning and Design. Tuktoyaktuk, Northwest Territories. Northwest Territories. Dept. of Municipal and Community Affairs [Sponsor].
Calgary, Alta. : Reid, Crowther & Partners, 1986.
1 v. (various pagings) : ill., maps ; 28 cm.
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
Schedules.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This study was undertaken to provide the Hamlet Council with design concepts for the optimum use of the airport site and to prepare amendments to the community plan required by changes to the airport land. The first section describes the approach, process and results of the design concept. The second section presents the amendments to the Community Plan in by-law form. (NOGAP)

L-210498

Arctic SAR scenarios and response evaluation / Arctec Canada Limited. Canadian Coast Guard [Sponsor].
Calgary, Alta. : Arctec Canada Limited, 1985.
vi, 75, [65] p. : ill. ; 28 cm.
(NOGAP project no. E.02 : Further development of pollution counter measures in the North)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OOT, OORD

This report documents the results of work undertaken to define present and future arctic marine search and rescue (SAR) scenarios of concern and to assess the effectiveness of existing equipment and systems to respond to these incidents. A total of sixteen SAR candidate scenarios were developed which cover the full range of probabilities of occurrence and incident ramifications. Of these, five were selected for detailed analysis and evaluation. Present SAR capabilities were established by contacting government and industry groups which contribute to the SAR response and which are SAR-tasked and equipped. Available SAR equipment was identified and listed by region and by type, from information provided by the above group along with local operators. The probable SAR response was defined and assessed for the five scenarios which were to be evaluated in detail. Potential improvements to the present response are detailed in terms of possible

actions (i.e. actions requiring relatively low expenditures and effort) and ideal actions (i.e. those requiring massive expenditures and intensive efforts). (Au)

L-210510

Special requirements of shipboard firefighting systems used in cold temperatures / Melville Shipping Limited. Canadian Coast Guard [Sponsor].
Calgary, Alta. : Melville Shipping Ltd., 1985.
vii, [198] p. : ill. ; 28 cm.
(Transport Canada report, no.TP6225E)
(NOGAP project no. E.09 : Program to update arctic ship construction regulations)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OOT, OORD

This report presents the results of a study to determine the effectiveness and suitability of shipboard fire extinguishing agents, systems and appliances, for use in very cold temperatures. The report documents the environmental conditions which affect firefighting capability and identifies the firefighting problems which can arise. Procedures adopted by land based fire services to overcome cold temperature firefighting problems are included, as are the protective measures adopted by shipowners and shipbuilders. The firefighting and equipment standards and regulations for ships, offshore structures and helicopter decks of a number of national administrations are examined, and their cold temperature reference compared. A guideline specification for shipboard firefighting systems and equipment for cold temperature operations is presented, as are training requirements. Based upon study findings, recommendations are made for regulatory changes and proposals are put forward for further research required to resolve outstanding problems. (Au)

L-291846

A study of the multiple ships track in ice in Admiralty Inlet, spring 1986 / Norland Science and Engineering Ltd. Wells, D.B. Canarctic Shipping Ltd. [Sponsor]. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Toronto, Ont. : Norland Science and Engineering Ltd., 1987.
xiii, 95 p. : ill. ; 28 cm.
(NOGAP project no. A.05 : Physical environment : process and impacts)
Appendix.
Reference.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This study investigated whether the broken ice track left by ships might be a barrier to travel by Inuit and also serve to accelerate break-up of ice cover. The report concluded that multiple ship tracks did not impose a serious restriction on the mobility of hunters. The track had only a marginal impact on fracturing and clearing of the ice cover, though under certain environmental conditions it could result in an accelerated clearing of the ice cover. The study recommended a continuation of break-up monitoring using remote sensing. (NOGAP)

L-291919

Yukon fish and effects of causeways / LGL Limited, Environmental Research Associates. Arctic Sciences Limited. Griffiths, W.B. Fischelm, R.G. Gallaway, B.J. Fissel, D.B. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Sidney, B.C. : LGL Limited ; Arctic Science Ltd., 1988.
xiv 124 p. : ill. ; 28 cm.
(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)
Reference.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

A synthesis of relevant information on the effects that causeways in Alaska have had on the distribution, movement and population levels of anadromous fish. The analysis is then combined with data from the Yukon coast to assess the potential impact on fish of coastal structures in this region. A review of the positions and views of U.S. regulatory agencies on the impact of causeways is also provided. (NOGAP)

L-291927

The potential effects of tanker traffic on the bowhead whale in the Beaufort Sea / LGL Limited, Environmental Research Associates. Koski, W.R. Miller, G.W. Davis, R.A. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
King City, Ont. : LGL Limited, 1988.
xi, 149 p. : ill. ; 28 cm.
(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)
Final draft.
Appendices.
Reference.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This study integrates existing data to address questions related to the potential effects of tanker traffic on bowhead. The principal topics in the report include; calve distribution, age segregation, harvest interference, and cow-calf separation. Several of these topics relate to questions first identified in a workshop conducted by the Beaufort Environmental Monitoring project sponsored by DIAND. (NOGAP)

L-308382

M.V. ARCTIC midbody damage analysis / Canadian Marine Drilling Limited. Canadian Coast Guard [Sponsor].
Calgary, Alta. : Canadian Marine Drilling Ltd., 1985.
1 v.
(Transport Canada report, no.TP6224E)
(NOGAP project no. E.09 : Program to update arctic ship construction regulations)
This report is held as confidential by OOT; project manager must give permission to lend.
Document not seen by ASTIS. Citation from NOGAP.
OOT

See also: D-80420, I-207195, I-207365, I-210340, Q-210064, Q-291943, R-309672, S-207896.

M – ENGINEERING AND CONSTRUCTION

M-167592

Arctic industrial activities compilation, Volume 1 : Beaufort Sea : marine dredging activities 1959 to 1982 / Institute of Ocean Sciences, Patricia Bay. Taylor, D.A. Reed, M.G. Smiley, B.D. Arctic Laboratories Limited. Floyd, G.S.
Sidney, B.C. : Institute of Ocean Sciences, 1985.
xiii, 192 p. : ill. ; 28 cm.

(Canadian data report of hydrography and ocean sciences, no. 32)
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Available in paper and microfiche.
Appendices : Load and dump site locations. – Existing legislation applicable to Beaufort Sea dredging. – Canadian dredging levels on a regional basis. – Major international dredging activities and dredged material volumes.
References.
ACU

Marine dredging has occurred over the past 25 years in the Canadian Beaufort Sea. During the period 1959 to 1982, approximately 46.5 million cubic meters of seabottom materials, mostly sand, clay, and gravel, were dredged by and for petroleum companies, communities, and government development agencies. ... The majority of recorded dredging operations (95 out of 109) were associated with the construction of artificial islands for exploratory drilling (29.0 million cubic m) and coastal harbours for anchorage and shorebase support (17.2 million cubic m). Most offshore dredging occurred in water depths less than 50 m. Tuktoyaktuk Harbour and McKinley Bay have been locations of extensive coastal dredging. ... The peak of annual dredging (95% of total volume) occurred in the open water months of July to October. Annual dredging requirements exceeded 4 million cubic m in years since 1976, principally because of accelerated oil exploration. The most common dredge in use was a cutter suction type, specifically, the Aquarius, which has dredged 34% of all Beaufort requirements. This historical dredging overview is based on the compilation and archiving of 100 individual dredging operations reported in government and industry records to 1982. A computer database was employed to organize operation details. ... A complete listing of this dredging database is provided in this report. Computer-drawn maps show the locations of all past dredging operations. Appendices include summaries of legislation applicable to Beaufort Sea dredging and a Canadian dredging perspective by region. (Au)

M-292010
Sewage waste discharge to the arctic marine environment : final report / Stanley Associates Engineering. Dobrocky Seatech Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Yellowknife, N.W.T. : Stanley Associates Engineering Ltd., 1987.
1 v. (various pagings) : ill. ; 28 cm.
(NOGAP project no. A.20 : Beaufort Sea shore base monitoring program)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This study identifies key environmental issues related to the discharge of sewage effluents to arctic marine environments, and examines sewage treatment options for arctic and high arctic conditions. A review of the principal constituents of sewage and their potential environmental effect is provided and results are applied to three potential effluent sources: (1) marine vessels; (2) offshore facilities; and (3) shore-based facilities and communities. The study contains specific recommendations on policies, guidelines and treatment technology. (NOGAP)

See also: B-291781, B-291790, B-291803, B-291811, B-291838, B-308412, C-292346, I-207411, P-210579, Q-202908, S-207896.

N – RENEWABLE RESOURCES

N-210650
Fisheries survey of Herschel Island, Yukon Territory from 9 July to 12 August, 1985 / North/South Consultants Inc. Baker, R.F. Yukon Territory. Dept. of Renewable Resources [Sponsor].
Winnipeg, Man. : North/South Consultants Inc., 1985.
vi, 44 p. : ill. ; 28 cm.
(NOGAP project no. G.10 : Herschel Island Territorial Park planning)
References.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

A fisheries survey of Herschel Island, Yukon Territory was conducted between 9 July and 12 August, 1985. This study was undertaken to obtain information on the spatial midsummer distribution of nearshore anadromous and marine fishes of Herschel Island so as to assess the potential impact of park development on the species. The species were captured, five of which were anadromous. The anadromous fishes represented 84% of the total catch which consisted primarily of Arctic cisco (Coregonus autumnalis). Highest CPUE values and greatest species diversity occurred in Workboat Passage followed by Pauline Cove and was low and variable in Thetis Bay. CPUE of Arctic cisco increased through July reaching a maximum abundance at the end of the study period. Sheltered bays and coves have been identified as areas of importance for both juvenile and adult fish. Ichthyoplankton, predominantly Arctic cod (Boreogadus saida), were captured in the nearshore environment from all areas. The effects of park development and related activities on the fish community of Herschel Island are discussed. (Au)

N-292435
Energy statistics : research paper / Yukon Territory. Bureau of Statistics.
Whitehorse, Yukon : Yukon Territory, Bureau of Statistics, 1987.
54 p. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

The report provides a comprehensive look at electricity data ranging from plant operations to electricity prices. It also focuses on petroleum products and time series data at the product level. Data is derived from a number of identified sources. (NOGAP)

See also: I-291994, I-292451, I-309559, I-309613, I-309710, V-309656.

P – MINING

P-210579

Socio-economic impact assessment of industrial development on Yukon's north coast / DPA Group Inc. Yukon Territory. Dept. of Economic Development.

Calgary, Alta. : The DPA Group Inc., 1985.

iii, 119, [22] p. ; 28 cm.

(NOGAP project no. G.06 : Socio-economic impact assessment of industrial development on Yukon's north coast)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

YWLS, YWA, OORD

This study assessed the relative positive and negative effects of two potential port development scenarios at King Point on the North Coast of Yukon: a port and rock quarry facility (Kiewit Arctic Project) and a multi-user port development (Monenco-Interlog). Multiple account analysis was used to assess the impacts. Three separate accounts were considered: Yukon economic impacts, government financial impacts and social impacts. Overall, both projects would generate substantial economic effects during the construction phase but much reduced effects during the operations phase. Both projects would have moderate positive effects on Yukon's business community in terms of supplying goods and services during both construction and operations. To the extent that Yukon's economy could be expanded more into the oil and gas sector as well as the marine transportation sector, the multi-user port would have the effect of diversifying Yukon's economy in the long-term. The Kiewit project would primarily utilize existing mining capabilities in Yukon and thus generate little diversification. The projects would generate a small revenue to the Yukon government and have both positive and negative effects on the social environment. To enhance economic effects, it is recommended that the projects be encouraged to merge and be staged in development, provided their economic viability is pre-established. The Yukon government should place priority on establishing a strong transportation link to the Beaufort Sea, and on encouraging the oil and gas industry in further extending business and employment opportunities to the Yukon market. (Au)

Q -- PETROLEUM, NATURAL GAS, AND PIPELINES

Q-167614

Arctic industrial activities compilation, Volume 2 : Sverdrup Basin : hydrocarbon exploration 1974 to 1984 / Sackmann, T. Smiley, B.D. Institute of Ocean Sciences, Patricia Bay.

Sidney, B.C. : Institute of Ocean Sciences, 1985.

xii, 181 p. : ill., maps ; 28 cm.

(Canadian data report of hydrography and ocean sciences, no. 32)

(NOGAP project no. B.06 : Beaufort Sea oceanography)

Available in paper and microfiche.

Appendices: A. Individual seismic survey description. – B. Common drilling fluid components and additives by tradename. – C. Individual well descriptions.

References.

ACU

This report provides an historical overview of seismic and hydrocarbon drilling activities in the Sverdrup Basin region, Northwest Territories. The review of seismic exploration activities includes a discussion of the vehicles, energy sources used in seismic surveys, timing of field operations, an outline of operator involvement in seismic exploration, and the areal and chronological distribution of these activities. The discussion text is supplemented with computer-drawn maps of seismic of seismic transects shot during individual programs. Hydrocarbon exploration and delineation drilling activities are reviewed. ... An experimental offshore gas well completion at the Panarctic Drake Point F-76 well is outlined. Operator involvement in drilling activities is discussed followed by a review of the areal and chronological distribution of drilling activities. The text is supplemented with maps showing drilling locations segregated according to the proponent and the year of operation. The layout and activities at the Rae Point, Melville Island support base are reviewed, as are onshore and offshore drilling fluid disposal practices. Individual descriptions of seismic programs and wellsite activities, as well as tradenames and usage of common drilling fluid components and additives are listed in the appendices. (Au)

Q-202908

Northern marine pipeline control technology / Monenco Consultants. Canada. Environmental Protection Service [Sponsor].

Calgary, Alta. : Monenco Consultants Limited, 1986.

1 v. (various pagings) : ill. (some folded), maps ; 28 cm.

(NOGAP project no. C.01 : Northern marine pipeline control technology)

References.

Contents: 1. Introduction. – 2. Technical review of arctic marine pipelining and dredging. – 3. Environmental setting. – 4. Technical and environmental concerns. – 5. Environmental implications and information gaps.

Report DSS 8264-0/3744.

OORD, YWEEP, AEEPS, OOFF

The objective of this report is to describe current marine pipeline technology as it relates to the Arctic environment, and to discuss the environmental and technical implications and information gaps of marine pipeline construction and operations. The report describes the state-of-the-art of Arctic marine pipeline construction and identifies the unique aspects of the construction and operation of a pipeline in the Arctic environment. In particular, the ever-present ice conditions, the relatively short open water season and the need to protect the pipeline from scour by various types of ice features have been identified. Various parameters which characterize the environmental implications of pipeline failure or release of pipeline contents are described. A pipeline fluid release of known quantity and chemical characteristics at a defined Arctic location, combined with the environmental implications, will allow environmental assessment of oil spills or other pipeline fluid releases. (E. Collins) (Au)

Q-207179

Compilation of 1985 industrial activities in the Canadian Beaufort Sea / PN Research Projects. Norton, P. ESL Environmental Sciences Limited. McDonald, J.W. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Sidney, B.C. : PN Research Projects, 1986.

iv, 50 p. : ill., maps ; 28 cm.

(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN

This document provides a compilation of 1985 industrial activities

information for the Canadian Beaufort Sea. The methods used to compile, tabulate and organize the information are generally the same as those established in the 1983 compilation by the U.S. Minerals Management Service, with the following major exceptions: (1) the time frame was expanded to include June 1 to December 31, 1985; (2) available information on activities in "nearshore" areas was included; (3) summary tables plus maps are provided to indicate activity locations and intensity; (4) research flights were tabulated and mapped as separate activities. All of the data is available on 5.25 inch floppy diskettes for use on an IBM PC or compatible microcomputer using the dBase-III database management system. The diskettes are archived with Northern Environment Directorate, Indian and Northern Affairs Canada, Hull, Quebec. They include information on activity type, time period, specific vessel or aircraft used, and location of activity. (NOGAP)

Q-207373

Long term potential for leaching of oil contaminated cuttings from the use of oil based muds in the arctic marine environment / Dobrocky Seatech Limited. Yunker, M.B. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Sidney, B.C. : Dobrocky Seatech Ltd., 1986.
xviii, 89 p. : ill. ; 28 cm.
(NOGAP project no. A.20 : Hydrocarbon activities : Marine research and management)
Final report.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This report describes the experimental investigation of the rates and durations of release of oil and oil fractions from low aromatic mineral oil contaminated drill cuttings discharged to static (under ice) and dynamic (open water, wave) arctic marine environments. Experimental and analytical protocols are described and results are presented. The rates of hardening and consolidation (cuttings pavement formation) of the cuttings layers under static and dynamic conditions were also investigated. The wave regime was found to be the dominant influence in the experiments conducted; the oil concentrations on the cuttings were significantly affected by the presence of waves. (Au)

Q-207403

Incineration of oil based drilling muds / Dome Petroleum Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Calgary, Alta. : Dome Petroleum Ltd., 1986.
ii, 85 p. : ill. ; 28 cm.
(NOGAP project no. A.20 : Hydrocarbon activities : Marine research and management)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This project investigated the usefulness of four oil spill incinerators for the disposal of oil based drilling muds. Three oil based muds (fresh diesel, fresh mineral and used diesel) were incinerated using the Air-Portable Incinerator, the Reciprocating Kilo, the Saacke Waste Oil Burner and the T.O.P.S. (Technical Offshore Petroleum Service) Burner. The efficiency of burn and quality of the resulting residue were evaluated for each device. It was found that all three muds could be burned with equal efficiency within each of the four incinerators. ... Two burners proved to be particularly effective for burning oil based muds. The T.O.P.S. burner incinerated all muds at high rates of combustion (average 331 bbls/day). The Saacke burner also provided significant incineration capability (average 166 bbls/day), although this unit would require modification to handle the solids content on a continuous basis. ... (Au)

Q-207438

Behaviour of oil in freezing situations / University of Toronto. Dept. of Chemical Engineering and Applied Chemistry. Wilson, D.G. Mackay, D. Canada. Environment Canada [Sponsor].
Toronto, Ont. : University of Toronto, 1986.
iv, 63 p. : ill. ; 28 cm.
(C&P manuscript series)
(NOGAP project no. C.06 : Beaufort atlas : background information for implementing marine oil spill countermeasures)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

An experimental study of the behaviour of an oil spill in a developing (grease) ice field is described. It was found that significant quantities of oil may be entrained within and beneath a grease ice field. ... It is suggested that the results and observations obtained here be used as a component in an "expert system" computer model that would aid in the prediction of the fate and behaviour of an oil spill in the presence of a developing ice field and in other regimes in which oil may interact with ice. This model may then be included as part of a comprehensive model encompassing the entire spectrum of oil spill conditions which may occur in the Arctic marine environment. (Au)

Q-207560

Norman Wells pipeline monitoring sites ground temperature data file, 1984-1985 / Burgess, M.M. Canada. Earth Physics Branch [Sponsor]. Canada. Dept. of Indian Affairs and Northern Development [Sponsor]. Interprovincial Pipe Line Limited [Sponsor].
Ottawa : Energy, Mines and Resources Canada, 1986.
21, [64] p. : ill., ; 28 cm.
(Open file – Canada. Earth Physics Branch, no. 86- 6)
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

The Earth Physics Branch of the Department of Energy, Mines and Resources, in cooperation with the Department of Indian and Northern Affairs and Interprovincial Pipe Line Ltd., has undertaken a long-term ground thermal regime monitoring program to examine the effect of the construction and operation of the Norman Wells pipeline on permafrost and terrain conditions. The program focuses on thirteen monitoring sites representing a cross section of the terrain types encountered by the buried oil pipeline as it traverses the discontinuous permafrost zone. The monitoring sites, six of which were established in 1984 and seven in 1985, are instrumented with multithermistor temperature cables; in total there are 97 ground temperature cables and 23 pipe temperature cables. This report is a collection of the data gathered from these cables in 1984 and 1985. (Au)

Q-207586

Oxygen demand of oiled drill cuttings / Seakem Oceanography Ltd. Hutcheson, M.S. Boyle, D. Maclean, M. Odense, R. Erickson, P. Canada. Indian and Northern Affairs Canada [Sponsor].
Dartmouth, N.S. : Seakem Oceanography Ltd., 1986.
iv, 50 p. : ill. ; 28 cm.
(NOGAP project no. A.20 : Hydrocarbon activities : Marine research and management)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This report describes a laboratory study of the oxygen demand of oiled

drill cuttings layered over natural marine sediments. Treatments and the test temperature were chosen to reflect conditions in the Canadian Arctic where oiled drill cuttings currently pose a solid waste disposal problem. A review of methods for determining the oxygen demand of aquatic sediments was conducted and a core incubation procedure using the micro-Winkler titration method was chosen to use in the experiments. A review of work related to the oxygen demand of oiled sediments was also performed. The primary emphasis of the study was to determine the total sedimentary oxygen demand at time intervals to 30 days of oiled drill cuttings layered over either coarse (sand) or fine marine sediments in 1, 2.5, 5 and 15 mm thicknesses. Redox potential (Eh) profiles were made through the cuttings and sediment each time oxygen demand was determined. A secondary objective was to determine changes in the pore water concentrations of mercury, copper, cadmium, lead and zinc with time. (Au)

Q-208019

Spill containment and cleanup course manual / Stanley Associates Engineering. Northwest Territories. Dept. of Renewable Resources [Sponsor].

Edmonton, Alta. : Stanley Associates Engineering Ltd., 1985.

1 v. (various pagings) : ill. ; 28 cm.

(NOGAP project no. H.17 : Environmental protection and monitoring of hydrocarbon development areas)

Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYRR, NWYGI

This manual provides the background needed to respond to hydrocarbon and chemical spills that occur in the Northwest Territories. It presents information on the characteristics, properties and hazards of spilled materials, provides suggested response, cleanup and site restoration actions, and discusses potential health and environmental effects. It also contains several case histories of actual spill response actions carried out for spills in the NWT. The information presented has been especially tailored to recognize the unique conditions that exist within the NWT. (Au)

Q-210064

Arctic tanker loading and mooring study final report / Canadian Marine Drilling Limited. Canadian Coast Guard [Sponsor].

Calgary, Alta. : Canadian Marine Drilling Ltd., 1986.

298, [59] p. : ill. ; 28 cm.

(Transport Canada report, no.TP7371E)

(NOGAP project no. E.05 : Studies to assess and develop arctic navigation systems)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGA

OORD, OOT

The concept of loading arctic tankers from exposed terminals in the arctic offshore has been the subject of earlier studies. The experience gained by Canmar in the operation of arctic Mobile Caissons and in the studies performed during 1983 to 1985 clearly indicated that an approach by vessels to an exposed terminal production facility during the winter is feasible. This study investigates the mooring and loading concepts and techniques, the associated equipment and their costs, as well as the related downtime results, extrapolations can be made for specific production scenarios. (Au)

Q-210366

Assessment of freshwater impacts from the Norman Wells oilfield development : Part I : chemical characterization of Norman Wells crude oil refinery effluent and cooling water, literature review of fate and effects, research program design / E.V.S. Consultants Ltd. Canada. Environment Canada [Sponsor].

North Vancouver, B.C. : E.V.S. Consultants Ltd., 1985.

x, 139 [14] p. : ill. ; 28 cm.

(NOGAP project no. C.02 : Criteria for the control and monitoring of petroleum development impacts on the Mackenzie River)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD

This study has characterized the hydrocarbon constituents of produced oil, refinery effluent and cooling water from the Norman Wells refinery. In addition, a thorough literature review of fate and effects was undertaken. As the only industry/refinery on the Mackenzie River, the refinery effluent is a possible source of contaminants. However, in this study, composite and grab samples indicated that effluent water quality was good in comparison with most other oil refinery effluents in terms of conventional parameters (e.g. phenols, total organic carbon, ammonia). In relation to the effluent, cooling water samples contained much reduced concentrations of hydrocarbons. The most prominent compound in the refinery effluent (also found in the cooling water) was morpholine. As fish detect and imprint this compound at extremely low concentrations, it is possible that this constituent may be acting to "imprint" and/or chemically attract fish into the effluent plume. Further investigations would be required to define the importance of this concern. Analysis of the Norman Wells crude oil suggests that any impacts from short term spills would be minimal due to the volatilization and biodegradation of many of its constituent hydrocarbons. (NOGAP)

Q-210374

Assessment of freshwater impacts from the Norman Wells oilfield development : Part II : field and laboratory studies / Morgan, J.D. Vigers, G.A. Nix, P.G. E.V.S. Consultants Ltd. Canada. Environment Canada [Sponsor].

North Vancouver, B.C. : E.V.S. Consultants Ltd., 1986.

2 v. : ill. ; 28 cm.

(NOGAP project no. C.02 : Criteria for the control and monitoring of petroleum development impacts on the Mackenzie River)

Appendices.

References.

Contents: Volume 1. Final report. – Volume 2. Appendices.

Document not seen by ASTIS. Citation from NOGAP.

OORD

... For the present study, burbot and Arctic grayling were exposed for 10 days in cages at sites upstream and downstream from known point sources of hydrocarbon inputs (e.g. refinery effluent, natural oil seeps). After the period of exposure, fish bile was analyzed and the results compared with the following: analysis of muscle tissue for volatile aromatic compounds by a purge and trap technique ...; examination by members of the local communities for fish acceptability (i.e. colour of liver, watery flesh); and river water and sediment quality using gas chromatography/mass spectrometry. Limited laboratory bioassays were also undertaken to confirm results of the field studies and to assess any enhanced impacts of simulated conditions of ice cover on fish survival and bile PAH levels. ... It was concluded that bile analysis of resident fish populations, and experimentally exposed fish, is a promising biochemical/enzymatic indicator of hydrocarbon contamination in freshwater fishes. Further investigations are required to confirm the applicability of this technique in demonstrating relationships between liver histopathology and hydrocarbon exposure, and in discerning localized and downstream impacts. (Au)

Q-210382
Environmental atlas for Beaufort Sea oil spill response / Dickins, D.F. Bjerkelund, I.E. ESL Environmental Sciences Limited. Potter, S.G. Canada. Environmental Protection Service [Sponsor].
Vancouver, B.C. : D.F. Dickins Assoc. Ltd., 1986.
1 v. (various pagings) ; 28 cm + 1 atlas (unpaged : ill., maps (some col.) ; 21 x 28 cm.
(NOGAP project no. C.06 : Beaufort atlas : background information for implementing marine oil spill countermeasures)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, AEEPS, OOFF, YWEEP, BVAEP, NWYEEP

This project is to synthesize environmental information relevant to planning and implementing year-round oil spill countermeasures in coastal and offshore areas of the Canadian Beaufort Sea from the USA/Canada border eastward to west of Baillie Islands. The proposed environmental atlas will utilize information in the following main subject areas: physical environment, human use considerations, biological resources, and countermeasures considerations. Site-specific countermeasures information will be limited to identifying environmental and logistical constraints which could affect the implementation of appropriate response strategies. These strategies will be described in general terms and used in presenting a limited number of representative oil spill scenarios. The atlas will emphasize a high quality graphical presentation of current information. Phase 1 is concerned primarily with issues of content, information sources, format and presentation. (Au)

Q-210684
Beaufort Sea cumulative monitoring : possible indicators for socio-economic issues / Rolf, C.A. Northwest Territories. Energy, Mines and Resources Secretariat [Sponsor].
[S.l., s.n.], 1985.
105 p. ; 28 cm.
(NOGAP project no. H.08 : Socio-economic monitoring system, northern hydrocarbon development)
Document not seen by ASTIS. Citation from NOGAP.
OORD

This study identified sources, kinds and limitations of available data which might serve as qualitative indicators for ten issues arising from the socio-economic impacts of hydrocarbon development in the Beaufort region. These issues include: demography, urbanization and industrialization, municipal issues, wage employment, business development, prices and incomes, renewable resource harvesting, community control, education and the mass media. Attention was focused on data already collected by various government departments. Data quality limitations arise from three factors: the data were not collected specifically for monitoring purposes; some issues are less readily quantifiable, and some indicators are less effective, or inconsistent, as measures of the element that is to be measured. Study results are presented as a catalogue of 79 indicators, organized by issue. (NOGAP)

Q-210722
Social monitoring of cumulative impacts in the Beaufort/Delta area : a comprehensive critique of available indicators and an introduction to community issues / Northwest Territories. Dept. of Social Services.
Yellowknife, N.W.T. : N.W.T. Dept. of Social Services, 1985.
254 p. ; 28 cm.
(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This report represents a first step in the development of a data base from which social change arising from hydrocarbon development in the Beaufort/Delta area can be identified and planned for. Its objective is to determine what data is available and to evaluate its suitability. Sixty-three community issues and 112 suitable social indicators are identified and critiqued. Data sources and explanatory notes regarding the data are presented for each indicator. (Au)

Q-210730
NOGAP database system : system study and evaluation : phase 1 / Northwest Territories. Dept. of Social Services.
Yellowknife, NWT : Northwest Territories. Dept. of Social Services, 1986.
64 p. : ill. ; 28 cm.
(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI, NWYOS

The NOGAP database system is intended to provide information to identify the changing needs for delivery of social services in Beaufort/Delta communities arising from the impact of oil and gas development, and to assist in determining the most effective method of delivering statutory and preventive services to each community. The system will be designed to build on and strengthen community resources for identifying and dealing with issues. This report describes ten major social issues and addresses associated indicators in terms of definition, supplier, format, size, values and frequency. A systems approach for managing the data and the advantages/disadvantages of manual and automated systems are discussed. Costing for the recommended automation alternative is also provided. (NOGAP)

Q-291943
Arctic industrial activities compilation for the Canadian Beaufort Sea : seismic surveys, vessel movements, aircraft traffic and offshore marine activity 1986 / PN Research Projects. Norton, P. ESL Environmental Sciences Limited. McDonald, J.W. Blyth, A. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Sidney, B.C. : ESL Environmental Sciences Limited ; Edmonton, Alta. : PN Research Projects, 1987.
vii, 161 p. : ill. ; 28 cm.
(NOGAP project no. A.08 : Disturbance of marine mammals by industrial activity)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

The study summarizes all 1986 industrial activities in the Canadian Beaufort Sea. The procedures followed in obtaining and entering the data, in tabulating and graphing the information and in organizing the report are also described. This information is also available from the Northern Environmental Directorate of DIAND, Les Terrasses de la Chaudiere, Hull, Quebec. (NOGAP)

Q-291986
Handling of waste drilling fluids from on-land exploratory drilling in the Northwest Territories and Yukon / Hardy BBT Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Calgary, Alta. : Hardy BBT Limited, 1987.
iv, 56 p. ; 28 cm.
(NOGAP project no. A.12 : Contaminants in the aquatic

environment and quality of food species)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This study reviews methods of handling waste drilling fluids from on-land petroleum exploration in the Northwest Territories and Yukon. A major question addressed by this study was whether the current practice of total containment is operationally acceptable. This report makes a number of recommendations aimed at improving present practices and investigating new practices such as decanting. The results of a two-day joint workshop are also discussed here. (NOGAP)

Q-292028
Evaluation of protocol to test toxicity of mineral oil and mineral oil-based drilling fluids / Leader, C.C. Osborne, J.M. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
[Ottawa] : Environmental Protection Service, 1987.
iv, 35 p. : ill. ; 28 cm.
(NOGAP project no. A.20 : Beaufort Sea shore base monitoring program)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

The current protocol for preparing a water-soluble fraction (WSF) from mineral base oil and testing its toxicity was evaluated. Results indicated no significant difference between the parameter combinations in degree of toxicity or oil/grease and total suspended solids content. It recommended that the current protocol for obtaining and testing a mineral base oil's WSF continue to be followed. It also recommended that a standard procedure for testing toxicity of drilling fluids be developed. (NOGAP)

Q-292079
Provision of hydrocarbon measurements for the NOGAP B.6 program : phase partitioning by crossflow techniques / Dalhousie University. Dept. of Oceanography. Whitehouse, B.G. Wangersky, P.J. Canada. Dept. of Fisheries and Oceans [Sponsor].
Halifax, N.S. : Dalhousie University, 1988.
ii, 20 p. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Final report.
Document not seen by ASTIS. Citation from NOGAP.
OORD, BVIEM

This program investigated solid/liquid phase partitioning of hydrocarbons in Mackenzie River Delta by designing, assembling, and deploying a crossflow filtration apparatus capable of physically separating the colloidal and dissolved fractions. Also included was the assembly and deployment of a prefilteration system capable of retaining particles greater in size than 1.2 cm. (NOGAP)

Q-292125
Northern marine pipeline control technology / Monenco Consultants. Canada. Environment Canada [Sponsor].
Calgary, Alta. : Monenco Consultants Ltd., 1987.
xvii, 306 p. : ill. ; 28 cm.
(NOGAP project no. C.01 : Northern marine pipeline control technology)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, YWEEP, AEEPS, OOFF

The harsh environment of the Arctic present major challenges in installing arctic offshore pipelines. This report describes current marine pipeline technology as it relates to the arctic environment and discusses the environmental and technical implications and information gaps associated with marine pipeline construction and operation. Recommendations are included for developing environmental guidelines and codes of practice for construction, operation and monitoring of offshore pipelines. (NOGAP)

Q-292141
Assessment of freshwater impacts from the Norman Wells oilfield development : part III / ESL Environmental Sciences Limited. Seakem Oceanography Ltd. P. McCart Biological Consultants Ltd. Canada. Environmental Protection Service (Northwest Region) [Sponsor].
Seattle, Wash. : ESL Environmental Sciences Limited, 1987.
2 v. (59; 40 p.) : ill. ; 28 cm.
(NOGAP project no. C.02 : Criteria for the control and monitoring of petroleum development impacts on the Mackenzie River)
Content: Volume I: text. – Volume II: tables and appendix.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYEEP

A review of relevant literature, sampling of Mackenzie River water and suspended sediment, and further evaluation of burbot by qualitative and chemical measures is provided. The study concluded that burbot liver problems have an objective basis. Chemical and other analyses did not find a statistically significant relationship between liver problems and hydrocarbon exposure. Effluent from the Norman Wells refinery was found not to make a significant difference to hydrocarbon levels which occur naturally in the river system. (NOGAP)

Q-292150
An assessment of freshwater impacts from petroleum hydrocarbons on the Mackenzie River at Norman Wells, N.W.T. : part IV / Steve E. Hurdey & Associates Ltd. Canada. Environmental Protection Service [Sponsor].
Edmonton, Alta. : Steve E. Hurdey & Associates Ltd., 1988.
xii, 106 p. : ill. ; 28 cm.
(NOGAP project no. C.02 : Criteria for the control and monitoring of petroleum development impacts on the Mackenzie River)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYEEP

The Environmental Protection Service undertook here to develop criteria for protecting Mackenzie River aquatic resources from development impacts and to provide recommendations on contaminant monitoring. This report summarizes the findings of this research effort and recommends development of monitoring programs as well as further research. (NOGAP)

Q-292192
Environment atlas for Beaufort Sea oil spill response / Dickins (D.F.) Associates Ltd. ESL Environmental Sciences Limited. LGL Limited, Environmental Research Associates. Erickson Associates. S.L. Ross Environmental Research Ltd. Dobrocky Seatech Limited. PN Research Projects. Canada. Environmental Protection Service [Sponsor].
Vancouver, B.C. : D.F. Dickins Associates Ltd., 1987.
v, 182 p. : ill., col. maps ; 22 cm x 30 cm.
(NOGAP project no. C.06 : Beaufort atlas : background information for implementing marine oil spill countermeasures)
ISBN 0-921-623-03-8.
Appendices.

References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYEEP, AEEPS, BVAEP, OOFF, YWEEP

A synthesis of environmental information relevant to the planning and implementation of year-round oil spill countermeasures in both coastal and offshore areas of the Beaufort Sea is provided in atlas format. The atlas presents key information in concise, graphic form with supporting text and finds application in developing effective contingency plans for the Beaufort area. It also serves as a source document for oil spill training exercises and a field reference in actual spill situations. The study area covers the southern Canadian Beaufort Sea from the United States/Canada border to the Baillie Islands. (NOGAP)

Q-292206
Modelling of oil spills in snow : draft report / S.L. Ross Environmental Research Ltd. Canada. Environment Canada [Sponsor].
Ottawa : S.L. Ross Environmental Research Limited, 1988.
iii, 35 p. : ill. ; 28 cm.
(NOGAP project no. C.06 : Beaufort atlas : background information for implementing marine oil spill countermeasures)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYEEP

The author reports on development of equations for modelling the fate of oil spills in snow. A literature survey was undertaken to assess data gaps. Based on the results of this survey, field experiments were conducted to collect data on oil evaporation rates beneath snow, oil transport by blowing snow and oil spread beneath snow. The results of these tests and data from the literature review were used to develop equations to describe spreading and evaporation rates. (NOGAP)

Q-292583
A review of renewable resource impacts and mitigation related to northern hydrocarbon development / DeLCan, De Leuw Cather, Canada Ltd. Environmental Systems Group. Northwest Territories. Dept. of Renewable Resources [Sponsor].
Ottawa : Delcan, DeLeuw Cather, Canada Ltd., 1987.
1 v. (various pagings) : ill. ; 28 cm + chart (l p ; 28 x 42 cm).
(NOGAP project no. H.04 : Renewable Resources hydrocarbon development impact and planning guidelines)
Progress report.
Appendix.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

Mitigation measures associated with two classes of projects were reviewed in conjunction with the findings of current northern project impact assessments – those that involved terrestrial exploration and transportation of oil and gas, and those that concentrated on offshore oil and gas exploration and transportation. The most common impacts are identified for current and associated projects on renewable resources related to accidental chemical spills and construction of support facilities and pipelines. The report identifies possible mitigation action associated with a range of petroleum-related activities. (NOGAP)

Q-308510
Permafrost and terrain monitoring, Norman Wells Pipeline / MacInnes, K.L. Burgess, M.M. Harry, D.G. Baker, T.H.W. Canada. Dept. of Indian Affairs and Northern Development.
[S.l. : s.n.], 1989-1990.
2 v. (131 p.; 204 p.).
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
(Northern Affairs environmental studies report, no. 64)
ISBN 0-662-17529-8.
Contents: v. 1. Environmental and engineering considerations – v. 2. Research and monitoring results 1983-88.
Document not seen by ASTIS. Citation from NOGAP.
OORD

The IPL (NW) Norman Wells pipeline is a 869 KM long 324 mm diameter buried oil pipeline from Norman Wells, N.W.T. to Zama, Alberta. New approaches were used in its design and for the mitigation of environmental impact, especially in relation to the soils of the discontinuous permafrost zone. Volume one of this two volume report describes design concepts and mitigative approaches used in the construction and operation of the pipeline and the environmental conditions which have influenced these considerations. The project, regulatory requirements and the goals of the Permafrost and Terrain Monitoring Programme are also described along with a comparison to other northern pipelines constructed on permafrost soils. Volume two covers research and monitoring. Instrumentation and the monitoring of ground temperatures, pipe temperatures, thaw depths and ground settlement are described. Observations are compared with design predictions. Overall terrain performance and the performance of wood chips for insulating thaw sensitive slopes are evaluated. A set of 38 recommendations provides advice on the research and monitoring process and requirements for further monitoring on the Norman Wells pipeline and for future northern pipelines. (NOGAP)

Q-308536
Permafrost and terrain preliminary monitoring results, Norman Wells pipeline, Canada / Burgess, M.M. Canada. Dept. of Indian Affairs and Northern Development.
(Proceedings – International Conference on Permafrost, 5th, Trondheim, Norway. – [S.l. : s.n.], 1988, p. 196-921)
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
Document not seen by ASTIS. Citation from NOGAP.
OORD

The 869 km Norman Wells oil pipeline, owned by Interprovincial Pipe Line (NW) Ltd. (IPL) traverses the discontinuous permafrost zone of Northwestern Canada. Operation began in April 1985. Monitoring of the thermal regime at thirteen locations along the route forms a major component of a long term cooperative government-IPL permafrost and terrain research and monitoring program. Observations to the end of March 1987 indicate that mean annual pipe temperatures, range from 0 degrees C to 5 degrees C, both within the wide spread discontinuous permafrost terrain in the north and the sporadic discontinuous permafrost terrain in the south. Mean annual ground temperatures on the right-of-way (ROW) at 1 m depth, several metres from the trench, range from –2 degrees to +4 degrees C and are on average 1.5 degrees colder than mean annual pipe temperatures. Mean annual ground temperatures off-ROW at a depth of 1 m range from –3 degrees to +3 degrees C and are on average 1 degree colder than those on-ROW. Maximum surface settlement observed on the ROW at the sites has reached up to 80 cm outside the trench area, and over 100 cm in the vicinity of the trench. (NOGAP)

See also: B-207330, B-207357, B-308706, C-291854, C-292001, C-308528, C-308544, C-308552, C-308560, C-309729, D-309494, D-309753, F-292133, H-292354, I-181862, I-189294, I-192899, I-195260, I-207411, I-207497, I-210390, I-281212, I-292168, I-292176, I-292214, I-292249, I-292575, I-308480, I-308498, I-309699, I-309702, I-309710, J-207390, J-207942, J-291862, J-291897, J-291900, J-292567, J-309680, L-291927, M-167592, R-189804, R-189820, R-207853, R-207934, R-210609, R-309591, S-207918, U-308854, U-309249, X-190314, X-195499, X-211672, X-211699, X-287709, X-308501, X-309389.

R – GOVERNMENT, ECONOMIC CONDITIONS, AND SOCIAL CONDITIONS

R-11223

Yukon spatial price survey / Yukon Territory. Yukon Territory. Bureau of Statistics.
1977- .
[Whitehorse, Yukon] : Bureau of Statistics, Government of Yukon, 1977- .
tables ; 28cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Quarterly.
Description based on June 1986 issue.
Document not seen by ASTIS. Citation from NOGAP.
ACU, OORD, YWA

... The survey is designed to provide a statistical measure of the differences in prices of goods and services bought by consumers. ... The survey includes prices of a sampling of what people buy regularly, for example, food, clothing, automobiles, household items, fuel, drugs, recreational goods, hair cuts, repair costs, transportation fares, public utility rates, etc. ... (Au)

R-116696

Staff training study : Department of Social Services / A.R.A. Consultants. Northwest Territories. Dept. of Social Services [Sponsor].
Yellowknife, N.W.T. : A.R.A. Consultants, 1985.
[138] p. ; 28 cm.
(NOGAP project no. H.11 : Research to develop a training program for social services)
References.
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
NWYGI, OORD

Because of the expanding role and responsibilities being assumed by community social services workers in the Beaufort Sea region, the Department of Social Services commissioned this study to identify and assess the current and anticipated training requirements of its field staff. It was found that workers are faced with increasing demands for the more interactive and counselling elements of social work. Although the nature of training currently available was considered generally acceptable, the report contains recommendations for greater effectiveness through more systematic planning, budgeting and coordinating of training activities and for specialized training in the areas of community development, family counselling, program development, and assertiveness and self-confidence building. Designs for workshops on family counselling and community development are included as appendices. (NOGAP)

R-189804

The effects of rotational wage employment on workers and their families in the Beaufort Sea – Mackenzie Delta area : an annotated bibliography, indicators, employment data and recommendations for further research / Northwest Territories. Dept. of Social Services. NOGAP Research Team. Northwest Territories. Dept. of Social Services [Sponsor].
Revised edition May 1986.
Yellowknife, N.W.T. : Northwest Territories. Dept. of Social Services, 1986.
66 p. ; 28 cm.
(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)
Cover title: The effects of rotational wage employment on families and workers in the Beaufort – Mackenzie Delta area.
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
NWYGI, OORD, ACU

In the past fifteen years, a significant number of native people in Canada's Arctic have been involved in wage employment in the oil and gas and mining industries as rotational (community) employees. This report contains an annotated bibliography of relevant literature, indicators for impact assessment and recommendations for further research, which is intended to enable the Government of the Northwest Territories to assess the effects of rotation on families and workers in the Beaufort area and devise solutions to identified problems. (NOGAP)

R-189812

Yukon business opportunity identification study : business sector reports / Novacorp Consulting Inc. Yukon Territory. Dept. of Economic Development [Sponsor].
Vancouver, B.C. : Novacorp Consulting Inc., 1986.
[183] p. ; 28 cm.
(NOGAP project no. G.07 : Identification of Yukon business opportunities from Beaufort hydrocarbon development activities)
Document not seen by ASTIS. Citation from NOGAP.
YWA, YWLS, OORD

The report comprises information booklets for each of fifteen business sectors that were researched to identify sales and services opportunities for Yukon businesses in the oil and gas industry in northern Canada and Alaska. Each booklet presents a summary of the author's findings respecting a specific sector, information and conclusions relevant to that sector concerning oil and gas development, opportunities that could be pursued, marketing initiatives that should be considered and important contacts within the industry. (NOGAP)

R-189820

Yukon business opportunity identification study : final report / Novacorp Consulting Inc. Yukon Territory. Dept. of Economic Development [Sponsor].
Vancouver, B.C. : Novacorp Consulting Inc., 1986.
[231] p. : ill. ; 28 cm.
(NOGAP project no. G.07 : Identification of Yukon business opportunities from Beaufort hydrocarbon development activities)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
YWA, YWLS, OORD

The objective of this study was to identify opportunities for Yukon-based companies to sell goods and services to the oil and gas industry in northern Canada and Alaska, and to recommend action required to achieve these sales. Research focused on the Yukon business sector and on the oil and gas industry, but investigations extended to government, native groups and others who could influence or play a role in economic development. The report presents the research findings and identifies a number of areas in which Yukon businesses could obtain sales and contracts from the oil industry. Recommendations to assist in taking advantage of these opportunities are made for Yukon's business sector, the Yukon Territorial Government, the Whitehorse and Yukon Chambers of Mines, and the oil companies. (NOGAP)

R-189839

Revenue Canada summary report : 1973 to 1983 / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Yukon Territory. Bureau of Statistics, 1986.

63 p. : ill. ; 21 x 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
ISBN 1-55-18-004-5.
Appendix.
Document not seen by ASTIS. Citation from NOGAP.
YWA, YWLS, OORD

This report is similar to the one for 1972 to 1982, but is based on data from the 1983 tax year. (NOGAP)

R-189847
Selected characteristics from the 1981 census of Canada : Volume 1 : Whitehorse and other major Yukon communities / Yukon Territory. Bureau of Statistics.
Whiehorse, Y.T. : Yukon Territory. Bureau of Statistics, 1985.
41 p. : ill. ; 21 x 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Citation from.
Document not seen by ASTIS. Citation from NOGAP.
YWA, YWLS, OORD

The contents of this report are based on the statistics provided by the 1981 Census of Canada for Yukon. Major characteristics have been selected from the 1981 Census in an attempt to provide an easily referenced statistical guide for Yukon. Tables and charts present community-level data for 12 demographic variables and 5 employment variables. (NOGAP)

R-189855
Selected characteristics from the 1981 census of Canada : Volume 2 : Yukon and Canada, a comparative analysis / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Yukon Territory. Bureau of Statistics, 1985.
44 p. : ill. ; 21 x 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Document not seen by ASTIS. Citation from NOGAP.
YWA, YWLS, OORD

The content of this report is based wholly on the 1981 Census of Canada for Yukon and, in particular, the Statistics Canada publication "Statistical Information on the Federal Electoral District Yukon" (May, 1984). Major characteristics have been selected from the 1981 Census in an attempt to provide an easily referenced comparative analysis between Canada and Yukon. Comparisons are provided in textual graphic and/or tabular form for 12 demographic variables and 5 employment variables. (NOGAP)

R-189863
Yukon data book 84-5 : a complete information guide to Yukon and its communities / Yukon Territory. Dept. of Tourism and Economic Development.
Whitehorse, Y.T. : Outcrop Yukon Ltd., 1984.
132 p. : maps, tables ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
ISBN 0-010315-11-9.
References.
Document not seen by ASTIS. Citation from NOGAP.
YWA, YWLS, OORD

This publication describes Yukon Territory in terms of its geography, climate, plant and animal life, history, demography, government, economy and services. Similar, more detailed profiles are provided for 18 individual Yukon communities. (ASTIS)

R-189871
Growth management strategies : recommendations to assist in the management of boom/bust in the Beaufort / Praxis, Inc. Roberts, R. Fresh Start Social Consultants Company Limited. Kupfer, G. Northwest Territories. Energy, Mines and Resources Secretariat [Sponsor].
[Calgary, Alta.] : Praxis Inc., Fresh Start Social Consultants Company Limited, 1985.
xx, 147 p. : ill. ; 28 cm.
(NOGAP project no. H.09 : Investigation of boom/bust cycles)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD

This is one of two documents resulting from a study which investigated boom/bust cycles, assessed their potential effects and developed strategies to control in-migration and reduce the potential economic and social disruption associated with these cycles. This report identifies the major issues faced by territorial policy and program personnel, recommends action by the N.W.T. Executive Council and the public service, and identifies the implications of these recommendations and implementation responsibilities. (NOGAP)

R-207853
Beaufort region cumulative monitoring indicator catalogue / Northwest Territories. Energy, Mines and Resources Secretariat.
Yellowknife, N.W.T. : The Secretariat, 1986.
156 p. ; 28 cm.
(NOGAP project no. H.08 : Socio-economic monitoring system, northern hydrocarbon development)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

Hydrocarbon development in the Beaufort Region is expected to have a number of socio-economic impacts. A report by Carley (1984) grouped these impacts into issues of community concern which should be monitored. A study by Rolf (1985) looked at the issues of demography, urbanization and industrialization, municipal issues, wage employment, business development, prices and incomes, renewable resource harvesting, education, community control, and the mass media. A second study by Elkin-Hall (1985) dealt with the issues of welfare dependency, family life, health, alcohol use, public safety, and housing. The two studies have been combined to create this package. ... The aim of these studies was to first identify various sources and types of data and then to identify the possible limitations of the data with regard to being valuable indicators. Most of the information came from territorial government headquarters and federal government offices in Yellowknife. ... (Au)

R-207934
U.S. coastal zone planning and management activities in the Alaskan Beaufort : implications for the Government of the Northwest Territories / M.W. Coastal Futures Inc. Northwest Territories. Dept. of Renewable Resources [Sponsor].
Ottawa : M.W. Coastal Futures Inc., 1986.
70 leaves : ill. ; 28 cm.
(NOGAP project no. H.04 : Renewable Resources hydrocarbon development impact and planning guidelines)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYRR, NWYGI

The objective of this study is to examine and evaluate US planning and management thrusts in the Alaskan Beaufort and to identify common issues related to development that might affect GNWT interests. The study begins with a review of material relating to the physical characteristics of the region as well as a discussion of what is taking

place in the Beaufort coastal zone region from an economic development and administrative perspective. Issues of concern to the GNWT are identified, and a description made of possible development scenarios. Administrative resource management questions relating to the issues are identified, and recommendations are made for action by the GNWT. (Au)

R-208000

Community development manual / Stanley Associates Engineering. G.A. Bruce Holdings Ltd. Northwest Territories. Dept. of Social Services [Sponsor].
Yellowknife, N.W.T. : The Department, 1986.
vi, 38 p. : ill. ; 28 cm.
(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI, NWYOS

This manual is to be used as one of many tools by community councils, community development workers and social workers when practicing community development and delivery workshops. It is divided into four sections: (1) community development; (2) organizational maze, which describes formal groups that may exist within a community and identifies organizations outside the community at the regional, territorial and national level that can influence community issues; (3) root cause, and (4) community development models and methods, which describes constructive citizen participation focussing on the three major players – industry, government and communities – in the development of oil and gas resources. Examples of community development provided are specific to the Beaufort area. (NOGAP)

R-208787

Baseline data study / Northwest Territories. Dept. of Social Services.
[Yellowknife, N.W.T.?] : The Department, Beaufort Delta Social Impact Baseline Data Study, 1987.
3 v. ; 22 x 28 cm.
(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)
Contents: Vol. I. Indicator guide. – Vol. II. Baseline data, Book 1. – Vol. II. Baseline data, Book 2.
ACU, OORD, NWYGI

As recent developments in the field of cumulative impact monitoring and assessment show, a great deal of socio-economic data must be compiled and summarized before appropriate social programs and policies can be prepared. This report is concerned primarily with the examination of existing statistical measures of the following eleven socio-economic issue areas which were identified by the Steering Committee during the past two years: (1) income support (2) family life (3) education (4) health (5) mental health (6) crime and public justice (7) young offenders (8) housing (9) alcohol and drugs (10) participation and leisure and (11) general. ... This Baseline Data Study is based on the framework developed by Michael J. Carley in Cumulative Socioeconomic Monitoring: Issues and Indicators for Canada's Beaufort Region, a study undertaken in 1984 under contract to the Energy, Mines and Resources Secretariat, (GNWT) and the Northern Economic Planning Branch, DIAND. ... The Baseline Data System [has been developed] as a basic reference tool for use in identifying the social impacts of petroleum industry related development on the communities of the Beaufort Delta area. ... [Volume I is a listing of data collected, the source of information, and reliability of data. Volume II, Books 1 and 2 are the actual data sets collected.] (Au)

R-210528

June 1, 1985 population estimates of Yukon / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Y.T. Bureau of Statistics, 1985.
19 p. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

The population estimates presented in this report represent demographic information derived from the new Yukon Health Care (YHC) insurance plan administrative system. Estimates are provided by community and age, age and sex, community, Whitehorse area sub- community and age, and Whitehorse area sub-community and sex. Evaluations of the YHC estimates against the 1981 census and against figures derived from comparable administrative systems, specifically the Family Allowance and Old Age Security programs, are included. (NOGAP)

R-210536

Family allowance summary report : 1980 to 1984 / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Yukon Territory. Bureau of Statistics, 1985.
34 p. : ill. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Appendices.
Updated annually.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

Data presented are derived from Statistics Canada – CANSIM F-55 Postal Code System. Data is geocoded by postal codes of family allowance recipients (those less than 18 years of age) and subsequently grouped into community and sub-community areas. The report presents a variety of graphic and tabular information relating to the geographical and age distribution of children in the Yukon. (NOGAP)

R-210544

Family allowance summary report : 1980 to 1985 / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Yukon Territory. Bureau of Statistics, 1986.
37 p. : ill. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
ISBN 1-55018-004-5.
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

This report is similar to the one covering the years 1980 to 1984. (NOGAP)

R-210552

Revenue Canada summary report : 1972 to 1982 / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Yukon Territory, Bureau of Statistics, 1985.
62 p. : ill. ; 21 x 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Appendix.
Annual update planned.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

Data presented were derived from the most current available statistics released by Revenue Canada. The report is subdivided into three main parts. Part A analyzes data from the 1982 tax year and includes a comparison of Canada and Yukon. Part B provides a time series analysis (1972-1982) for Yukon as a whole, as well as for selected communities. Part C analyzes changes in real income between 1972 and 1982 in Yukon and in selected Yukon communities. (NOGAP)

R-210587

Yukon SEIAN socio-economic impact model / Alaska Economics, Inc. Yukon Territory. Dept. of Mines and Small Business [Sponsor].

Juneau, Alaska : Alaska Economics, Inc., 1985.

43 p. ; 28 cm.

(NOGAP project no. G.06 : Socio-economic impact assessment of industrial development on Yukon's north coast)

References.

Document not seen by ASTIS. Citation from NOGAP.

YWLS, YWA, OORD

The NEWYEM econometric model of the Yukon economy produces conditional forecasts of employment, income and population change in Yukon. NEWYEM's ability to make accurate conditional forecasts is severely compromised whenever the events it is asked to depict constitute a significant break with the past. One solution to this problem is to prepare estimates of the initial impacts of significant events in such a way that these estimates can be used to adjust the simulation properties of the econometric model. The Yukon Socio-Economic Impact Analysis model (SEIAN) has been designed to "front-end" the Yukon econometric model (NEWYWM) in this way. Information from Canadian and Alaskan sources is combined in a linear activity analysis framework to produce a vector of inputs to NEWYEM. These inputs include major project-related employment by industry for 8 basic industries, 3 Yukon support industries, and for net migration to Yukon. The SEIAN model also produces measures of major project employment-related impacts. (Au)

R-210609

Caring for children : child care needs associated with hydrocarbon development in the Beaufort region / Erickson Associates. Erickson, D. Veit, S. Northwest Territories. Dept. of Social Services [Sponsor].

Victoria, B.C. : Erickson Associates, 1985.

88 p. : ill. ; 28 cm.

(NOGAP project no. H.10 : Day care study)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD, NWYIN, NWYOS

This study focused on the child care needs of three communities in the Beaufort region: Aklavik, Inuvik and Tuktoyaktuk. An assessment was made of current child care arrangements and resources used by people working in jobs associated with the oil and gas industry and potential solutions to child care problems. It was concluded that: (1) rotation employment is not the most critical factor in determining whether or not child care arrangements are problematic; (2) the presence of onshore facilities adjacent to Tuktoyaktuk presents many employment opportunities but is also associated with significant child care problems; (3) the Government of the NWT has not assumed an adequate support role for families who require day care services; (4) industry has not been sufficiently active in examining alternative work arrangements for Tuktoyaktuk residents to help reduce work/family conflicts. The report recommended that the Government of the NWT should develop and adopt a day care strategy and that major intervention should be undertaken in Tuktoyaktuk. (NOGAP)

R-210641

Tuktoyaktuk community development workshop : progress report, February 1986 / Stanley Associates Engineering. Northwest Territories. Dept. of Social Services [Sponsor].

Yellowknife, NWT : Stanley Associates Engineering Ltd., 1986.

ii, 20 p. : ill. ; 28 cm.

(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)

Appendix.

Progress report.

NWYGI, NWYOS

Community input for the development of a community-based Community Development Handbook for use in Beaufort/Mackenzie Delta communities was sought through a series of workshops. This report presents the results of an open house and workshop in Tuktoyaktuk at which residents identified and discussed eight community development issues relevant to their community. (NOGAP)

R-210692

Dictionary of growth management strategies / Praxis, Inc. Roberts, R. McNeil, L. Fresh Start Social Consultants Company Limited. Kupfer, G. Northwest Territories. Energy, Mines and Resources Secretariat [Sponsor].

[Calgary, Alta.] : Praxis, Inc., Fresh Start Social Consultants Company Limited, 1985.

xx, [345] p. : ill. ; 28 cm.

(NOGAP project no. H.09 : Investigation of boom/bust cycles)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD

This is one of two documents resulting from a study which investigated boom/bust cycles, assessed their potential effects and developed strategies to control in-migration and reduce the potential economic and social disruption associated with these cycles. This report identifies a wide range of strategies used in the NWT, other areas of Canada and internationally. Specific topics include: local employment and business development, community economic diversification, community/regional adjustment, community services, accommodations, planning and infrastructure, finance/taxation, information exchange, monitoring and compensation. (NOGAP)

R-210749

Coppermine community development workshop : progress report, February 1986 / Stanley Associates Engineering. Northwest Territories. Dept. of Social Services [Sponsor].

Yellowknife, N.W.T. : Stanley Assoc. Engineering Ltd., 1986.

ii, 20 p. ; 28 cm.

(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)

Appendix.

Progress report.

NWYGI, NWYOS

Community input for the development of a community-based Community Development Handbook for use in Beaufort/Mackenzie Delta communities was sought through a series of workshops. This report presents the results of an open house and workshop in Coppermine at which residents identified and discussed "what is good", "what is not so good" and "what ought to be" in their community. (NOGAP)

R-210757

Aklavik community development workshop : progress report February 1986 / Stanley Associates Engineering. Northwest Territories. Dept. of Social Services [Sponsor].

Yellowknife, NWT : Stanley Associates Engineering Ltd., 1986.

ii, 19 p. ; 28 cm.

(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)

Appendices.

Progress report.

Document not seen by ASTIS. Citation from NOGAP.

NWYGI, NWYOS

Community input for the development of a community-based Community Development Handbook for use in Beaufort/Mackenzie Delta communities by community development officers, social workers, municipal governments and the general public was sought through a series of workshops. This report presents the results of an open house and workshop in Aklavik at which residents identified "what is good" and "what is not so good" about their community. (NOGAP)

R-292389

Revised population estimates of the Yukon, June 1, 1987 / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Yukon Territory, Bureau of Statistics, 1988.
17 p. : ill. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Document not seen by ASTIS. Citation from NOGAP.
OORD, YWA

An estimate of Yukon population based on the number of persons registered in the Yukon Health Care Insurance Plan. The estimate for June 1st was 27,302. There are approximately 12% more males than females. A breakdown of age groups is also provided. (NOGAP)

R-292397

Yukon data book 1986-87 : a complete information guide to Yukon and its communities / Yukon Territory. Bureau of Statistics. Ross, D.
Whitehorse, Y.T. : Outcrop Yukon Ltd., 1986.
135 p. : ill., maps ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
ISBN 0-919315-17-8.
References.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

The Data Book furnishes comprehensive and timely statistics on the Yukon and communities. Detailed profiles are provided for 18 Yukon communities. Information includes history and demography, economy and services. Maps, tables and bibliography are also included. (NOGAP)

R-292400

Statistical review : fourth quarter 1987 / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Bureau of Statistics, 1988.
iii, 88 p. : ill. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

This review is published quarterly. Data originates from government, industry and private sources. Statistics presented include: population, employment, consumer prices, rental units, real estate, construction, resources, trade, and transportation. (NOGAP)

R-292419

Family allowance summary report : 1980-1987 / Yukon Territory. Bureau of Statistics.
Whitehorse, Yukon : Yukon Territory, Bureau of Statistics, 1988.
39 p. : ill. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

The Family Allowance Summary Report is published yearly by the Yukon Government. Data is derived from Statistics Canada, geocoded by postal codes of family allowance recipients and grouped into community or sub-community areas. The report presents a variety of graphic and tabular information relating to the geographical and age distribution of children in the Yukon. (NOGAP)

R-292427

Revenue Canada 1974 to 1984 summary report / Yukon Territory. Bureau of Statistics.
Whitehorse, Y.T. : Yukon Territory, Bureau of Statistics, 1987.
76 p. : ill. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Appendix.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, OORD, YWA

This report on income is published yearly by the Yukon Government, Bureau of Statistics and is derived from Revenue Canada statistics. The report is subdivided into three main parts. Part A analyzes data from the 1984 tax year and compares Yukon with Canada as a whole. Part B provides a time series analysis highlighting the Yukon and selected communities. Part C analyzes changes in real income between 1974 and 1984. (NOGAP)

R-292443

Opportunities for rotational employment in Yukon / DPA Group Inc. Perlman, B. Yukon Territory [Sponsor].
Calgary, Alta. : The DPA Group Inc. ; Whitehorse, Y.T. : B. Perlman, 1987.
ix, 85 p. : ill. ; 28 cm.
(NOGAP project no. G.05 : Labour accommodations study)
Reference.
Document not seen by ASTIS. Citation from NOGAP.
YWLS, YWA, OORD

The potential is examined for Yukon communities and Yukon-based resource projects to use rotational employment. Emphasis in the study was given to documenting lessons to be learned from rotational employment programs elsewhere in Northern Canada; the capacity of Yukon communities to participate in rotational employment programs; and, the potential socioeconomic impacts. Actions that could be taken to promote the concept and to minimize any of its negative aspects are discussed. (NOGAP)

R-292494

Town of Inuvik : report on organization, operations and long term growth needs / Touche Ross Management Consultants. Northwest Territories [Sponsor].
[S.L.] : Touche Ross, 1987.
72 p. : ill. ; 28 cm.
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

The report examines effectiveness of existing municipal administrative structures and concludes that operations are well-organized and effective. It recommends implementation of a revised organization for the town administration to be conducted in separate phases. These recommendations suggest alternative ways to administer the town during a short-term decline in community growth and, alternatively, how the municipality should be structured to best manage its expanded responsibilities as a result of rapid community growth. (NOGAP)

R-292559
An evaluation of Knute Lang Camp : a residential, preventative and educational alcohol and drug abuse project for native youth, piloted in Aklavik, Northwest Territories / Northwest Territories. Dept. of Social Services.
Inuvik, N.W.T. : Dept. of Social Services, 1987.
24 p. : ill. ; 28 cm.
(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
NWYGI, OORD

This report reviews and evaluates the degree to which the Knute Lang Camp Pilot Project's basic objectives were met. It recommends program and facility upgrading in order to make the camp a viable permanent facility serving the youth of the area. This wilderness camp addictions program is one of several new service delivery models developed and piloted with NOGAP support in order to mitigate the identified negative socio-economic impacts of hydrocarbon development in the Beaufort Delta area. (NOGAP)

R-308390
Yukon statistical profile, [1986-1987] / Yukon Territory. Bureau of Statistics.
Whitehorse, Yukon : Yukon Territory, Bureau of Statistics, [1987].
ca. 500 p. ; 28 cm.
(NOGAP project no. G.03 : Data development in relation to Beaufort hydrocarbon development requirements)
Document not seen by ASTIS. Citation from NOGAP.
OORD, YWA

The statistical profile is a comprehensive reference document on the Yukon's geography, population, economy and government. It assembles statistical data into a readily available format. (NOGAP)

R-309591
Beaufort socio-economic report / Northwest Territories. Energy, Mines and Resources Secretariat.
Yellowknife, N.W.T. : Energy, Mines and Resources Secretariat, 1988.
2, 27 p. : ill., maps ; 28 cm.
(NOGAP project no. H.08 : Socio-economic monitoring system, northern hydrocarbon development)
Volume 2 is bound with volume 1.
OORD

This pilot project report is part of a NOGAP (Northern Oil and Gas Action Program) project on socio-economic monitoring in Beaufort-Mackenzie Delta communities. Consequently, only the communities geographically located near the Beaufort are considered in this report. Other communities which benefit from industrial activity are not considered in this particular report. ... This report is divided into two volumes. ... The first volume is comprised of the Annual Report. This Annual Report has two sections: Section 1: Review of industrial activity, and Section 2: Review of community indicators. The second volume presents basic data in the form of Community Profiles. (Au)

R-309672
The directory of community groups : Inuvik and Kitikmeot regions / Sato, R. [Editor]. Northwest Territories. Dept. of Social Services.
Inuvik, N.W.T. : Northwest Territories. Dept. of Social Services, 1988.
343 p. : 1 map ; 28 cm.
(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)
Appendices.
OORD, NWYGI, ACU

The Beaufort Delta Social Impact Baseline Data Study is a research project working to assist in assessing the social and economical effects brought by the exploration of oil and gas in the Beaufort/Delta area with funding provided by the Northern Oil and Gas Action Program (NOGAP). (Au)

See also: J-309680, M-292010, P-210579, Q-207179, Q-210684, Q-210722, S-207861, S-210706, S-292478, U-292613, U-308404, U-309249, U-309257, X-190314, X-195499, X-211672, X-211699, X-287709, X-309389.

S – LAND USE, LAND MANAGEMENT, AND REGIONAL PLANNING

S-207861
Industrial land inventory / Nordzone Consultants Ltd. Inuvik, Northwest Territories. Northwest Territories. Dept. of Municipal and Community Affairs [Sponsor].
Inuvik, N.W.T. : Nordzone Consultants Ltd., 1985.
147 p. ; 28 cm.
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
Separate wall-size maps.
Document not seen by ASTIS. Citation from NOGAP.
NWYGI

This report establishes a data base documenting the existing land use of industrial properties and evaluates the development potential of and restrictions on the vacant industrial land within the Town of Inuvik. Each surveyed industrial property was examined under the following parameters: block and lot number, registered owner, size of lot, present use, buildings, drainage, vegetation, fill, access, adjacent property development, miscellaneous. Each lot is a separate file within the data base table. This report provides the basis for future decisions regarding the use and development of industrial land. Information contained in this report is also available on computer disc. (Au)

S-207870
Proposal to prepare a recreational greenbelt masterplan for the town of Inuvik, N.W.T. / Planarctic. Lavoie, L. Parent, A.M.C. Tutter, B. Woolham, A. Northwest Territories. Dept. of Municipal and Community Affairs [Sponsor].
Inuvik, N.W.T. : Planarctic, 1986.
38 leaves : ill., maps ; 28 cm.
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This report identifies a comprehensive, overall master plan for the parks and greenbelt areas within the Town of Inuvik. It coordinates and provides direction to the various projects identified to develop the town's recreational land, including a town square, marine/cultural complex, walking trails, playgrounds and beautification of the downtown core. The report will serve as a decision making tool for the Town Council and the Inuvik Recreation Board. (Au)

S-207896

Tuktoyaktuk airport relocation and planning study / Reid, Crowther & Partners. Tuktoyaktuk, Northwest Territories. Northwest Territories. Dept. of Municipal and Community Affairs [Sponsor].
Calgary, Alta. : Reid, Crowther & Partners, 1986.
v, 138 leaves : ill. ; 28 cm.
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
References.
Final report.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This study assessed Tuktoyaktuk's needs and options with regard to land available for development, especially for residential purposes. Use of the airport site for such development was one of the options examined. Development options were compared in terms of capital and operating costs, and social priorities and issues. The report supported the Hamlet's stated need for relocation of the airport in the long term to allow growth of the community to proceed in an acceptable manner. Development options in other areas of the Hamlet were identified to meet short term demand. (Au)

S-207918

Planning for resource development impacts on community government operations : background report for working sessions / RMC Resources Management Consultants (N.W.T.) Ltd. Northwest Territories. Dept. of Local Government [Sponsor].
Yellowknife, N.W.T. : RMC Resources Management Consultants (N.W.T.) Ltd., 1986.
87 p. ; 28 cm.
(NOGAP project no. H.06 : Municipal organization, services and infrastructure impact planning)
Workshop graphics.
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This report documents the impact management experiences of four community governments during the Norman Wells pipeline project, 1983-1985. The communities examined were Fort Norman, Wrigley and Fort Simpson in the NWT and Assumption in northern Alberta. Very brief sketches of similar experiences in Coppermine, N.W.T. and Anzac, Alberta are also included. The report draws from reports, documents and interviews with community members. The objective was to select experiences demonstrating how changes resulting from resource development may be guided (or opportunities exploited) to sustain or achieve community goals. Community issues and actions are cited in each case. These examples are to be used as case studies in workshops with north Beaufort/Delta community governments to assist them in preparing for similar development pressures. (Au)

S-207926

Selection of important areas for wildlife in the Northwest Territories / Salix Enterprises Ltd. Allison, L.M. Western Ecological Services Ltd. Peterson, N.M. Northwest Territories. Dept. of Renewable Resources [Sponsor].
[S.l.] : Salix Enterprises Ltd. : Ecological Services Ltd., 1985.
120 p. : ill. ; 28 cm.
(NOGAP project no. H.04 : Renewable Resources hydrocarbon development impact and planning guidelines)
Appendices.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYRR, NWYGI

This report examines the meaning of "protected areas" of different types in a wide variety of regional, national and international jurisdictions and analyses the values proposed for protection in specified "protected area" proposals within the Northwest Territories. It contains an inventory of all established and many proposed "protected areas" in the NWT. Its intent is as a background document for those parties interested in the implementation of a conservation strategy for the NWT. (Au)

S-210706

Town of Inuvik expansion plan / UMA Engineering Ltd. Associated Engineering Alberta Ltd. Inuvik, Northwest Territories [Sponsor].
Edmonton, Alta. : UMA Engineering Ltd. ; Associated Engineering Alberta Ltd., 1985.
iii, [33] p. : ill. ; 28 cm.
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
Document not seen by ASTIS. Citation from NOGAP.
OORD

This report reviews and refines the physical plan for the Town of Inuvik to provide for a design population of 7,000 and to identify major infrastructure requirements based on population thresholds. It provides a basis for the rational and economic development of land, basic information for the design and construction phases, a basis for the identification of funding sources, and information and analysis to support decision-making. (NOGAP)

S-292478

Tuktoyaktuk Harbour east shore land use plan / UMA Engineering Ltd. Tuktoyaktuk, Northwest Territories [Sponsor]. Northwest Territories. Dept. of Municipal and Community Affairs [Sponsor].
Edmonton, Alta. : UMA Engineering Ltd., 1987.
34 p. : maps ; 28 cm.
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYIN

This planning exercise provides the hamlet with a plan to accommodate and guide industrial land development within the municipality. Potential users were interviewed regarding possible future requirements for land and for harbour access. Three development alternatives were produced and reviewed. A final design, including municipal service policies, was accepted. All alternatives are included. A summary of interviews conducted with potential users is appended. (NOGAP)

S-292486

Town of Inuvik, waterfront study / Arctech Resource Management Services. Delcan Engineering. Northwest Territories. Dept. of Municipal and Community Affairs [Sponsor].
Inuvik, N.W.T. : Arctech Resource Management Services ; Delcan Eng., 1987.
97 p. : ill., maps ; 28 cm + atlas (13 p. ; 23 cm x 42 cm).
(NOGAP project no. H.02 : Funds for Tuktoyaktuk and Inuvik councils to identify impacts and plan for development)
Appendix.
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This study was carried out to guide future developments along the east channel of the Mackenzie River with emphasis on support for major industrial projects. It forms part of an overall resource development

master plan for the Inuvik waterfront. Analysis maps were prepared with present and future activities considered. Recommendations on municipal zoning are also included. (NOGAP)

S-292508

Infrastructure policy : report 1 : policy context – nature of the problem / R.A. Rabnett and Associates. Stanley Associates Engineering. Sussex Consultants Ltd. Northwest Territories [Sponsor].
Revised from the 1985 edition.
Vancouver, B.C. : R.A. Rabnett and Associates, 1987.
v, 79 p. : ill. ; 28 cm.
(NOGAP project no. H.07 : Policy on the financing of municipal infrastructure and land servicing for rapidly growing communities)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

This report focuses on policies and processes for financing the extra cost of rapid community infrastructure expansion resulting from accelerated hydrocarbon development in the Beaufort region. It establishes the policy context and considers a range of options. Anticipated demand for expanded services was calculated and compared with existing service thresholds and capacity, with problem areas identified. The nature and cost of infrastructure expansion was projected. Normal and forced growth situations were discussed. (NOGAP)

S-292516

Infrastructure policy : report 3 : cost recovery – financing rapid expansion / R.A. Rabnett and Associates. Urban Research Associates. Northwest Territories [Sponsor].
Revised from 1986 edition.
Vancouver, B.C. : R.A. Rabnett and Associates, 1987.
v, 137 p. : ill. ; 28 cm.
(NOGAP project no. H.07 : Policy on the financing of municipal infrastructure and land servicing for rapidly growing communities)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

Report 3 develops the basic criteria that will assist the G.N.W.T. and Beaufort communities to choose a financing option for infrastructure expansion. It focuses on the process by which an option to accommodate potential forced growth is selected and financed. The report makes recommendations regarding processes and strategies that can improve the ability of the G.N.W.T. and the communities to respond to potential forced growth and to increase their share of benefits. This report consists of two parts. Part A focuses on the communities' role in infrastructure expansion by examining local authority cost recovery procedures. Part B considers the role of governments in meeting revenue shortfalls. (NOGAP)

S-292524

Infrastructure policy : report 4 : policy options / R.A. Rabnett and Associates. Northwest Territories [Sponsor].
Vancouver, B.C. : R.A. Rabnett and Associates, 1987.
xiv, 88 p. : ill. ; 28 cm.
(NOGAP project no. H.07 : Policy on the financing of municipal infrastructure and land servicing for rapidly growing communities)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

Report 4 reviews problems associated with the additional costs of rapid expansion and makes recommendations along five main policy issues. It concludes that there are significant benefits to establishing a service delivery plan to deal with its anticipated needs; that the four component costs associated with community expansion be clearly distinguished; that industry's direct share of costs be recovered; and, that a Local Authority Impact Model apply as the tool for assessing a community's fiscal capacity and contribution to cost recovery. After evaluating the procedures for sharing costs of over-expansion, the report recommends establishment of a land servicing program and a revenue shortfall fund. (NOGAP)

S-292532

Infrastructure policy : dictionary – problems of responding to forced growth / R.A. Rabnett and Associates. McGrath, S.
Revised from the 1986 edition.
Vancouver, B.C. : R.A. Rabnett and Associates, 1987.
86 p. ; 28 cm.
(NOGAP project no. H.07 : Policy on the financing of municipal infrastructure and land servicing for rapidly growing communities)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

The document forms part of a series of studies focusing on alternative policies for financing the rapid expansion of community infrastructures and is organized into three parts. Part I discusses the nature of the problems, presents examples and lists references to each problem. Part II lists all publications with cross-references to each problem. Part III references all relevant documents with full bibliographical information. (NOGAP)

S-292656

Infrastructure policy : report 2 : costs associated with rapid expansion / R.A. Rabnett and Associates. Sussex Consultants Ltd. Urban Research Associates. Northwest Territories [Sponsor].
Revised from the 1986 edition.
Vancouver, B.C. : R.A. Rabnett and Associates, 1987.
v, 117 p. : ill. ; 28 cm.
(NOGAP project no. H.07 : Policy on the financing of municipal infrastructure and land servicing for rapidly growing communities)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

The costs associated with rapid expansion of community infrastructure are examined. The nature of social, financial and other kinds of costs imposed by growth are discussed. The report establishes a framework for selecting a service delivery plan to deal with these problems and identifies the potential for revenue shortfall. These subjects are then reviewed in the context of three Beaufort communities. Alternative funding options are discussed. (NOGAP)

S-309621

Herschel Island Territorial Park : draft management plan / Yukon Territory. Dept. of Renewable Resources.
[Whitehorse, Y.T.] : Dept. of Renewable Resources, 1989.
21 p. : maps ; 29 cm.
(NOGAP project no. G.10 : Herschel Island Territorial Park planning)
Cover title.
Appendices.
YWA, OORD

This report outlines the Government of Yukon's planned management of the Herschel Island Territorial Park. The plan has been prepared in accordance with the Western Arctic Land Claims Settlement Act and the Yukon Parks Act. (NOGAP)

See also: I-204390, I-207977, I-210340, I-309613, I-309630,

L-207888, L-207900, N-210650, R-292397, R-292400, R-292494, T-309400, U-309230, U-309273, X-190314, X-309389.

T – NATIVE PEOPLES – Except Archæology.

T-309400

Qikiqtaruk (Herschel Island) cultural study : final report / Inuvialuit Social Development Program. Nagy, M. Yukon Territory. Heritage Branch [Sponsor]. Oral Traditions Program (NWT) [Sponsor]. Parks Canada [Sponsor]. Frontec [Sponsor]. Polar Continental Shelf Project (Canada) [Sponsor]. Inuvik Research Center [Sponsor].

Inuvik, N.W.T. : Inuvialuit Social Development Program, 1991.

iii, 71 p. : ill.. 1 map ; 28 cm.

(NOGAP project no. G.18 : North coast heritage research and protection)

References.

YWA, OORD

The goal of the Herschel Island Cultural Study was to document Inuvialuit use and perceptions of Herschel Island for the purpose of developing an interpretive plan for the Herschel Island Territorial Park. This was accomplished by conducting personal interviews with aboriginal people of the area under study. Interviews were conducted in Aklavik prior to a field trip to Herschel Island. The collection of interviews took place between July 2 and July 29, 1990. The volume of the cultural study contains the transcripts of the interviews conducted. It represents the first phase of a three year North Slope cultural resources survey. (NOGAP)

See also: I-207497, I-210277, I-292575, I-308498, I-309559, I-309710, J-207942, L-207349, L-291846, R-292559, R-309672, S-309621, U-309257.

U – ARCHÆOLOGY

U-207764

Report of field activities – NOGAP 1985 : northern Yukon-western Mackenzie Delta / Archaeological Survey of Canada. Le Blanc, R.J.

Ottawa : Archaeological Survey of Canada, National Museum of Man, 1986.

vi, 77 leaves, [31] leaves of plates : ill. ; 28 cm.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(Manuscript report – Archaeological survey of Canada, no. 2632)

Appendix.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD

The 1985 field season of NOGAP archaeological work included inventory of the eastern half of the Yukon coastal plain and parts of the eastern flank of the Richardson Mountains, and test excavations at a previously located site on the Trail River (NgVh-1) at the western limit of the study area. Twenty-four sites were found along river valleys, on the Beaufort Sea coast, and on upland knolls and ridges of the North Slope. Test excavations at NgVh-1 yielded an assemblage characterized by technological debris associated with the production of antler tools. The site also had tent rings, house and shooting blind depressions, and a rock alignment used as a caribou drive. These features suggest that the site was a seasonal caribou hunting complex, used to exploit the Porcupine caribou herd. (Au)

U-207772

Mackenzie Valley archaeological survey field report / Archaeological Survey of Canada. Pilon, J.-L.

Ottawa : Archaeological Survey of Canada, National Museum of Man, 1985.

43 leaves, [8] leaves of plates : ill. ; 28 cm.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(Manuscript report – Archaeological Survey of Canada, no. 2521)

Appendix.

References.

Volume 2.

Document not seen by ASTIS. Citation from NOGAP.

OORD

The first field season of the Archaeological Survey of Canada, Canadian Museum of Civilization NOGAP project in the southwest Anderson Plain took place in 1985. Seventy-eight localities were inspected, of which forty had evidence of either prehistoric (18) or historic (11) occupations, or both (4). Seven could not be firmly attributed to either period. Most of the prehistoric components are characterized by thin scatters of faunal remains and lithic debitage as well as occasional hearths and fire-cracked rocks. They appear to relate to the late prehistoric period, although the nature of the samples makes this statement highly tenuous. (Au)

U-207780

Northern Oil and Gas Action Plan assessment of the Lancaster Sound region : an archaeological survey of the southwest coast of Devon Island from Wellington Channel to Stratton Inlet, August 3-12, 1985 / Northlands Research. Sutherland, P.D. Archaeological Survey of Canada [Sponsor].

[S.l.] : Northlands Research, 1986.

88 leaves, [32] leaves of plates : ill. ; 28 cm.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Appendices.

References.

Document not seen by ASTIS. Citation from NOGAP.

OORD

During the summer of 1985, the contractor undertook both helicopter and ground surveys for archaeological sites in the area under consideration. The work, which also included test excavations at one specific locality at the entrance to Maxwell Bay, was carried out in order to increase the archaeological database along one segment of the Northwest Passage and, in so doing, to provide the archaeological component of NOGAP with a better appreciation of the area's archaeological research and management requirements. Following a presentation of the study area and an archaeological overview, the report deals with the details of both field and laboratory work, and with the description and evaluation of identified sites and collections. In

conclusion, it offers a number of recommendations relative to archaeological resource management in the Lancaster Sound region. (Au)

U-207799
Report on Kugaluk site excavations, 1985 / Archaeological Survey of Canada. Morrison, D.A.
Ottawa : National Museums of Canada, 1985.
i, 12 leaves, [3] leaves of plates : ill. ; 28 cm.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(Manuscript report – Archaeological Survey of Canada, no. 2503)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

Excavations were undertaken in 1985 at Kugaluk, an early historic Mackenzie Inuit site located in Kugaluk Inlet, in the northwestern Northwest Territories. A number of activity areas and structures were mapped and tested, and both faunal and artifact collections were made. The site appears to be an important one from a number of research perspectives, and further work is strongly recommended. Kugaluk is in immediate danger of destruction due to land recession and erosion. (Au)

U-207802
Report of field activities – NOGAP 1986 : northern Yukon to Cape Bathurst Peninsula / Archaeological Survey of Canada. Le Blanc, R.J.
Ottawa : Archaeological Survey of Canada, National Museum of Civilization, 1987.
120 leaves, [50] leaves of plates : ill. ; 28 cm.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(Manuscript report – Archaeological Survey of Canada, no. 2834)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

In 1986, the Archaeological Survey of Canada continued the NOGAP archaeological programme in the Beaufort Sea region which it had begun the previous year. Inventories were conducted along the Yukon Coastal Plain, Richards Island, the Tuktoyaktuk Peninsula, Liverpool Bay-Eskimo Lakes, the lower Anderson River, and the area around Harrowby Bay on the Bathurst Peninsula. Test excavations were also continued at a site (NgVh-1) on the Trail River. The Yukon inventory resulted in the discovery of 16 sites, some of which indicate intensive caribou hunting in the upper Trail and Tuluqaq rivers. In the Northwest Territories, the wide-ranging surveys added 51 new sites to the existing database and six others were revisited. The most archaeologically productive areas were the Tuktoyaktuk Peninsula between Tuktoyaktuk and McKinley Bay, and the mouth of the Anderson River. (Au)

U-207810
Reconnaissance archeologique dans le sud-ouest de la plaine d'Anderson et dans la vallee du fleuve Mackenzie – rapport de terrain (PIPGN) [Archaeological reconnaissance in the south-west region of Anderson Plain and in the Mackenzie River valley – terrain report (PIPGN – 1986] / Archaeological Survey of Canada. Pilon, J.-L.
Ottawa : Archaeological Survey of Canada, National Museum of Civilization, 1987.
106 p. : ill. ; 28 cm.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Reconnaissance archeologique dans le sud-ouest de la plaine d'Anderson et dans la vallee du fleuve Mackenzie – rapport de terrain (PIPGN) [Archaeological reconnaissance in the south-west region of Anderson Plain and in the Mackenzie River valley – terrain report (PIPGN – 1986)]
English abstract.
Volume 2.
Text in French.
Document not seen by ASTIS. Citation from NOGAP.
OORD

The second season of fieldwork in the southwest Anderson Plain portion of the Archaeological Survey of Canada, Canadian Museum of Civilization NOGAP project took place in 1986. Five previously known sites were revisited in order to collect additional information and 18 new sites were found. Semi-subterranean house pits were discovered on 4 of the revisited sites. Two other house pits were discovered on one of the newly discovered sites. The finds of most of the new sites consist of thin scatters of faunal remains and lithic debitage, and occasionally evidence of combustion activities. Most of these sites appear to relate to the late prehistoric period. The data which are now available for this time period should soon permit a preliminary synthesis of the exploitation patterns of this area. (Au)

U-207829
Pilot study for assessment of landscape archaeological potential in NOGAP area / Terrain Analysis and Mapping Services Limited. Rampton, V.N. Archaeological Survey of Canada [Sponsor].
Ottawa : Terrain Analysis and Mapping Services Ltd., 1986.
39 leaves : maps ; 28 cm.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(Manuscript report – Archaeological Survey of Canada, no. 1942)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

A pilot study was undertaken during the summer of 1986 to develop an efficient means of mapping and predicting the archaeological potential of landscape within the NOGAP area. The three areas selected for study included: (1) parts of the Yukon Coastal Plain, (2) southern Richards Island, and (3) Harrowby Bay. A classification system was developed using a range of variables to assign rankings to terrain units established on the basis of previous quaternary mapping. Preliminary infield evaluation of the programme indicates potential for improved site discovery, but more intensive field investigations will be required to more fully assess its potential. (Au)

U-207837
Report on Kugaluk site excavations, 1986 / Archaeological Survey of Canada. Morrison, D.A.
[S.l.] : Canadian Museum of Civilization, 1986.
21 leaves, [4] leaves of plates : ill. ; 28 cm.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(Manuscript report – Archaeological Survey of Canada, no. 2718)

References.
Document not seen by ASTIS. Citation from NOGAP.
OORD

In 1986, the final phase of archaeological investigations at the Kugaluk site (NgTi-1) were carried out. This work involved the excavation of House 1, portions of its associated middens and two exterior activity areas (B and C). The remains appear to be those of 19th century Nuvurogmiut who concentrated heavily on the exploitation of caribou from spring until early winter. This data may thus provide evidence for a hitherto undocumented aspect of the Nuvurogmiut settlement/subsistence pattern. Additional site survey in the area resulted in the discovery of 5 new sites which may relate to Mackenzie Inuit, Dene and fur trade activities. (Au)

U-207845
Preliminary report on the NOGAP archaeological field training program, Drum Lake : the 1985 season / University of British Columbia. Dept. of Anthropology and Sociology. Pokotylo, D. Prince of Wales Northern Heritage Centre. Hanks, C.C.
Yellowknife, N.W.T. : Prince of Wales Northern Heritage Centre, 1986.
ix, 78 . : ill. ; 28 cm.
(NOGAP project no. H.32 : Training northerners in archaeological techniques)
References.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI, NWYWNH

The objective of the NOGAP archaeological field training program was to develop and evaluate a curriculum that can be used to rapidly train native residents of the Mackenzie Valley for work as field assistants on archaeological projects arising from hydrocarbon development in the Beaufort Sea – Mackenzie Valley area. Based upon the site survey and excavation conducted in 1985, a preliminary analysis of the archaeology of Drum Lake was also completed. (Au)

U-292613
A preliminary report on the Drum Lake Archaeological Field training programme 1985-1986 / University of British Columbia. Hanks, C. Pokotylo, D. Prince of Wales Northern Heritage Centre.
Vancouver, B.C. : University of B.C. ; Yellowknife, N.W.T. : Prince of Wales Northern Heritage Centre, 1987.
39 p. ; 38 cm.
(NOGAP project no. H.32 : Training northerners in archaeological techniques)
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

The Drum Lake Archaeological Field School was conducted in the summers of 1985 and 1986. A total of nine students participated. The main goal was to develop a curriculum that could be used to train native residents as field assistants on archaeological field site rescue projects. In addition to the training aspect, a significant contribution was also made to knowledge about the archaeology of the Mackenzie Mountains. A report on the fauna from the Hay River and Drum Lake sites is also included. (NOGAP)

U-292621
Living archaeology and Mackenzie Mountain prehistory : the evidence from Drum Lake / Pokotylo, D. Hanks, C.C. Prince of Wales Northern Heritage Centre.
Yellowknife, N.W.T. : Prince of Wales Northern Heritage Centre, 1987.
12 p. ; 28 cm.
(NOGAP project no. H.32 : Training northerners in archaeological techniques)
Paper presented at the 20th Annual Meeting at the Canadian Archaeological Association, Calgary April 24, 1987.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

A report on two field seasons of research at Drum Lake, located in the eastern slopes of the Mackenzie Mountains, N.W.T. Prehistoric and ethnographic Mountain Dene settlement patterns are examined by studying variability in artifact assemblages from select sites. Hypotheses of site structure and use are tested against archaeological data and observations of Mountain Dene who continue to use the area. The role of Drum Lake in regional prehistory is also assessed. (NOGAP)

U-292630
Pathways to archaeology : Dene oral tradition, ethnogeography and the material record / Prince of Wales Northern Heritage Centre. Andrews, T.D. Hanks, C.C. Northwest Territories [Sponsor].
Yellowknife, N.W.T. : Prince of Wales Northern Heritage Centre ; Edmonton, Alta. : University of Alberta, Dene Mapping Project, 1987.
15 p. ; 28 cm.
(NOGAP project no. H.32 : Training northerners in archaeological techniques)
Paper presented at the 20th Annual Meeting of the Canadian Archaeological Association, Calgary April 24, 1987.
Document not seen by ASTIS. Citation from NOGAP.
OORD, NWYGI

Mountain Dene oral tradition and the distribution of archaeological features of the area of Drum Lake in the Mackenzie Mountain region of the N.W.T. are discussed. The report argues that local oral tradition, specifically that which relates to ethnogeography and the distribution and uses of trails, has important contributions to make to aspects of archaeological research. The authors conclude that archaeologists must reconsider standard sampling strategies and research design in light of the knowledge and experience of local informants. (NOGAP)

U-299707
Caribou exploitation at the Trail River site, northern Yukon / Nagy, M.I. Yukon Territory. Heritage Branch.
[Whitehorse, Y.T.] : Yukon Tourism, Heritage Branch, 1990.
x, 157 p. : ill., maps ; 28 cm.
(Occasional papers in archaeology, no. 2)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Thesis (M.A.) – Simon Fraser University, Burnaby, B.C., 1988.
Bibliography: p. 140-157.
ACU

This thesis investigates a poorly-known aspect of the seasonal round of the late prehistoric Mackenzie Inuit, the late spring and summer caribou hunt, through the study of the Trail River site (NgVh 1) in the northern Yukon. Because the site is approximately 25 km from the Beaufort Sea and since coastal Mackenzie Inuit subsistence strategies were mainly oriented toward the exploitation of aquatic resources, it is important to understand why the Mackenzie Inuit used the site and how its use related to the rest of the seasonal round. ... (Au)

U-306495
Vihtr'iitshik : A stone quarry reported by Alexander Mackenzie on the lower Mackenzie River in 1789 / Pilon, J.-L. Archaeological Survey of Canada.
(Arctic, v. 43, no. 3, Sept. 1990, p. 251-261, ill., maps)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated

archaeological resource management system within the NOGAP area)
References.
ACU

The analysis of archaeological specimens gathered in 1988 at the mouth of the Thunder River (MiTi-1), lower Mackenzie Valley, indicates that the locality's primary function was as a quarry/workshop. Historical and toponymic data show that this was likely the quarry identified by Alexander Mackenzie on 24 July 1789. Collections from the southwest Anderson Plain contain high proportions of Thunder River siliceous argillite, some obtained from beach gravels or till deposits, while some were obtained from primary geological deposits. In collections from peripheral areas, Thunder River siliceous argillite is occasionally found and often consists of the end-products of lithic reduction. It is especially interesting to confirm the presence of Thunder River siliceous argillite in Mackenzie Delta Inuit sites. A critical evaluation of all available data shows that Alexander Mackenzie's journal was relatively accurate with respect to this lithic source. (Au)

U-308404

NOGAP archaeology project : an integrated archaeological research and management approach / Cinq-Mars, J. [Editor]. Pilon, J.-L. [Editor]. Archaeological Survey of Canada.
Victoria, B.C. : Canadian Archaeological Association, 1991.
159 p. : ill., maps ; 28 cm.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(Occasional paper – Canadian Archaeological Association, no. 1)
ISBN 0-9695202-0-4.
Contents: The NOGAP archaeology project : a brief introduction / J. Cinq-Mars and J.-L. Pilon – Archaeological field training in the NOGAP area / C.D. Arnold and C.C. Hanks – The Trout Lake archaeological locality and the British Mountain problem / S.C. Greer – Engigstciak revisited : a note on early Holocene AMS dates from the "Buffalo Pit" / J. Cinq-Mars, C.R. Harington, D.E. Nelson, and R.S. MacNeish – Bone and antler tools from a late prehistoric Mackenzie Inuit site / M. Nagey – Geomorphology as an aid to mapping archaeological resources in NOGAP areas / V.N. Rampton – New data relating to the prehistory of the Mackenzie Delta region of the NOGAP study area / R. J. Le Blanc – The later prehistory of Amundsen Gulf / L.A. Morrison – Insights into the prehistory of the lower Mackenzie Valley, Anderson Plain region, Northwest Territories / J.-L. Pilon – The basket case : deciphering subsistence patterns in the southwest Anderson Plain region, N.W.T., in the late prehistoric period / L. Still – Archaeological site distributions on the south coast of Devon Island, High Arctic Canada / P.D. Sutherland – Accelerator radiocarbon dates from the NOGAP archaeology project / J.S. Vogel, T.A. Brown, J.R. Southon and D.E. Nelson – Appendix I : NOGAP AMS Dates / J. Cinq-Mars – Appendix II : NOGAP bibliography / R.J. Dale and J.-L. Pilon.
Appendices.
References.
OORD

... Most of the articles in this volume represent final, expanded versions of a series of papers presented in a NOGAP symposium at the 1988 meetings of the Canadian Archaeological Association held in Whistler, British Columbia, following the conclusion of the first phase of the project. They have been brought together in this publication in order to illustrate the range of our field and laboratory activities and to present a few of the approaches which have already served to enhance our knowledge of the heritage resources of northern Canada, and our ability to manage and protect them more efficiently. The first paper ... provides us with a review of the PWNHC Archaeological Field Training Project ... . The next two papers deal with aspects of our re-analysis activities and serve to demonstrate the importance of trying to make the most of perviously-gathered and frequently under-exploited data sets. ... The following seven papers are concerned with various aspects or facets of NOGAP archaeological field investigations results, as well as methodological developments. (Au)

U-308838

Archaeological investigations in the Mackenzie Delta and Eskimo Lakes, 1985 / Prince of Wales Northern Heritage Centre. Arnold, C.D. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1986.
2 v. (99 p.).
(Manuscript report – Archaeological Survey of Canada, no. 2495)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Archaeological investigations at Saunatuk and the Narrows on the Eskimo Lakes and at Gopuk on the west bank of the east channel of the Mackenzie River across from Kittigazuit. All sites are prehistoric Mackenzie Inuit. Saunatuk, at the end of a peninsula on the Eskimo Lakes, contained a relatively large amount of human skeletal material as well as faunal material and 175 artifacts. The Narrows site was mapped and briefly tested. The faunal remains consisted largely of caribou and fish. Some human remains were noted on the surface of the Narrows site. The Gopuk site produced a quantity of surface collected artifacts and faunal remains. (NOGAP)

U-308846

Preliminary report on the 1986 activities of the Mackenzie Delta Heritage Project : Excavations at Gupuk (NiTs-1) / Prince of Wales Northern Heritage Centre. Arnold, C.D. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1986.
34 p.
(Manuscript report – Archaeological Survey of Canada, no. 2821)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Investigations were carried out at the Mackenzie Inuit winter village of Gupuk (NiTs-1) located on the east side of Richards Island on the shore of the East Channel. Over 2,000 artifacts were recovered from excavations and from eroding surfaces of the site. Although there is a wide variety of tool types, only one European artifact, a blue bead, was found. All faunal material, with the exception of beluga bone, was brought out of the field for identification. Foot and helicopter surveys were also conducted along the coast of Richards Island and along the Tuktoyaktuk Peninsula and the Eskimo Lakes / Sitigi Lakes chain. (NOGAP)

U-308854

Archaeological reconnaissance in the Mackenzie Delta-Eskimo Lakes region, summer 1984 / Prince of Wales Northern Heritage Centre. Arnold, C.D. Archaeological Survey of Canada [Sponsor].

[S.l.] : Archaeological Survey of Canada, 1985.
2 v. (32 p.) : ill.
(Manuscript report – Archaeological Survey of Canada, no. 2424)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report on helicopter supported archaeological reconnaissance in the lower Mackenzie Delta – Eskimo Lakes region. The survey routes chosen permitted the examination of a proposed natural gas pipeline, and the re-examination of known sites in the area. A map showing the four flights is included, as is a catalogue of artifacts collected at two sites (NhTs-4 and NiTs-1). Also included are photographs of artifacts and sites. (NOGAP)

U-308862

NOGAP archaeology project summary / Cinq-Mars, J. Le Blanc, R.J. Pilon, J.-L. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1987.
11 p.
(Manuscript report – Archaeological Survey of Canada, no. 2855)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Description and Notes on In-House Field Activities, Draft: Prepared as an addendum to the NOGAP poster presented at the 20th annual meeting of the Canadian Archaeological Association, Calgary, April 22-26, 1987.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Summary of the results of in-house field activities of two seasons of research by the NOGAP Archaeology Project. The area covered by this research extends from the Tulugaq River on the west to Cape Bathurst in the east, and south to the Point Separation vicinity. (NOGAP)

U-308870

Lower Mackenzie Valley site re-evaluation / Dale, R.J. Archaeological Survey of Canada.
[S.l] : Archaeological Survey of Canada, 1988.
93 p.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(Manuscript report – Archaeological Survey of Canada, no. 3019)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

This project was undertaken to update pre-NOGAP sites' accession records and information pertaining to sites found along the lower Mackenzie River drainage from Norman Wells downstream into the Delta. Also included is information on Gotthardt's 1986 sites. 131 sites were located in the study area, but only 57 with collections were studied. A total of 4601 specimens were examined. (NOGAP)

U-308889

Analysis of beluga bones from Gupuk, NiTs-1 / Friesen, T.M. Archaeological Survey of Canada.
[S.l] : Archaeological Survey of Canada, 1987.
30 p.
(Manuscript report – Archaeological Survey of Canada, no. 2853)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of a study of a substantial sample of beluga whale (Delphinapterus leucas) bones collected during the 1985 excavations at the Gupuk site (NiTs-1), located on Richards Island on the East Channel of the Mackenzie River. (NOGAP)

U-308897

Archaeological and ethnohistorical survey in the Peel and Husky channels, west Mackenzie Delta, N.W.T. / Gotthardt, R.M. Archaeological Survey of Canada.
[S.l] : Archaeological Survey of Canada, 1986.
87 p.
(Manuscript report – Archaeological Survey of Canada, no. 2653)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Survey of the Peel and Husky channels between Aklavik, and the confluences of these channels and the Peel River. 41 localities were tested along the Peel and Husky channels. Only one site, Shingnek, yielded possible evidence of prehistoric or early historic occupation. A number of localities were identified which are of historic significance as well as important resource areas, identified by informants. All the resource localities are on the Husky channel. (NOGAP)

U-308900

Northern Yukon arctic drainage site study (excluding Engigstciak and the Herschel Island sites) : The pre-NOGAP data base / Boreal Institute for Northern Studies. Greer, S. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1987.
3 v. (111;106;58 p.).
(Manuscript report – Archaeological Survey of Canada, no. 2911)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

This project is concerned with the archaeological data base from the arctic drainage region of northern Yukon Territory that pre-dates 1985 and the inauguration of the NOGAP archaeological field programme. The study is a review of the existing site records and collections, an updating of information files and associated collections documentation, and an analytical assessment of the research value and management concerns for northern Yukon sites and collections. The study is concerned with a total of 97 Borden designations. Every artifact from the site being studied was examined, and a minimal amount of analytic data on each one was recorded and is contained in the Analytical Catalogue (Vol.3). The data from the Analytical Catalogue and the Artifact Description Sheets along with the information from the available site records has been used to prepare a summary for each site (Vol.2). (NOGAP)

U-308919

A preliminary report on the NOGAP archaeological field training programme, Drum Lake : the 1985 season / Hanks, C.C. Pokotylo, D. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1986.

78 p.

(Manuscript report – Archaeological Survey of Canada, no. 2636)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Drum Lake was chosen as a training site on the basis of known Mountain Dene use patterns and because there were reliably reported historic sites in the area. Fifteen sites were recorded, seven of which contained stone tools and detritus. Three sites contain artifacts separated by discontinuous layers of volcanic ash. Seven sites were test-excavated and 2037 lithic artifacts were recovered. A summary of the physical geography of Drum Lake and a segment on site distribution and resource use is included. An occupation extending back 1,200 years is indicated and there is evidence of a shift in settlement patterns between the prehistoric and historic period. (NOGAP)

U-308927

Archaeological research in the Mackenzie Delta region / University of Alberta. Dept. of Anthropology. Le Blanc, R.J. Archaeological Survey of Canada [Sponsor].

[S.l.] : Archaeological Survey of Canada, 1988.

89 p.

(Manuscript report – Archaeological Survey of Canada, no. 3059)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Report of the results of archaeological inventory and test excavation on the Tuktoyaktuk Peninsula and Cape Bathurst peninsula. Surveys in the former area covered Toker Point, Warren Point, Hutchinson Bay and terraces along a palaeo-channel south of McKinley Bay. NkTj-1 was tested in the latter area and produced a Northwest Microblade assemblage. On the Cape Bathurst peninsula, work was undertaken along the Old Horton River channel, and 51 sites were located and tested. One, ObTv-1, was located near the Lagoon site on Banks Island and produced a late Palaeoeskimo assemblage. The second, ObRw-11, produced an assemblage with serrated endblades which suggests a possible early palaeoeskimo Independence 1- like occupation. The location of many of the sites on the Old Horton River channel is situated in a region where a glassy fused rock was being produced by spontaneous combustion of organic rich mudstones. The material was being exploited for tool production by Palaeoeskimo and possibly other cultures in the area. (NOGAP)

U-308935

Engigstciak revisited, final report to contract no. 1630-6M-103 / Ludowicz, D.G. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1987.

8 v.

(Manuscript report – Archaeological Survey of Canada, no. 2915)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

This report concerns the extant collection of the Engigstciak site (NiVk-1) which is housed at the CMC. Specific goals include assessing the integrity of available documentation, and determining future research and management needs for the collection. The report also reconstructs the cultural units or phases defined by MacNeish. Material collected by MacNeish in the 1950s constitutes the majority of the specimens. The collection includes a large proportion of lithics as well as bone and antler tools, pottery and a faunal sample. About 500 additional artifacts were collected by D. Clark in 1976. (NOGAP)

U-308943

Report on the 1990 NOGAP field season : Archaeological investigations at Whitefish Station (NfVc-1), Yukon arctic coast / Morrison, D.A. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1990.

17 p.

(Manuscript report – Archaeological Survey of Canada, no. 3333)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

This site, located on the edge of the Delta at its most northwesterly extreme, was reported by MacNeish in 1954 who noted one or more house depressions, with long entrance passages. Artifacts recovered during his test-excavations included a Thule type 2 harpoon head and Barrow Curvilinear pottery which suggested that the site was of Thule affiliation dating to between AD 1,000 to 1,400. Quantities of seal bone suggested that the site, which is now 3 km from the open sea, was closer to the sea when occupied. Excavations in 1990 did not support this interpretation. Two features were excavated: one was a recent 20th century cabin which was destroyed by fire, the other, while probably prehistoric, was not identified as to function. It may have been a natural feature used as a tent platform. The author concludes that this is the site mentioned by MacNeish but he cannot corroborate a Thule affiliation or a dependence on seals. The author speculates that the collection ascribed by MacNeish to this location actually derived from another unknown locality. (NOGAP)

U-308951

Report on Iglulualuit site excavations, 1987 / Morrison, D.A. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1987.

12 p.

(Manuscript report – Archaeological Survey of Canada, no. 2935)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

The Iglulualuit site (NlRu-1) is located a few km north of the mouth of the (new) Horton River, on the western coast of Franklin Bay. It is one of the largest prehistoric Inuit villages known from the Canadian Arctic. It comprises the remains of at least 30 sod and driftwood houses distributed over a distance of 800 m. Excavation concentrated on two of the more southerly houses. Just under 400 artifacts were recovered, including pottery, harpoon heads, ground and chipped stone end and side blades, scrapers, fish hook shanks, fish spear prongs, and broken whalebone mattocks. An estimated 6,000 faunal elements were also collected. The artifacts resemble those from other Western Inuit

sites including Kittigazuit. The two houses are both late prehistoric and date between A.D. 1500 and 1800. Iglulualuit can probably be attributed to the Mackenzie Inuit. (NOGAP)

U-308960

Compte-rendu des fouilles archeologiques effectuees sur les sites NbTj-3 et NbTj-1 au lac Hyndman situe dans la partie sud-ouest de la plaine d'Anderson, district de Mackenzie, Territoire du nord-ouest [Report of the archaeological excavations carried out on the sites NbTj-3 and NbTj-1 at Hyndman Lake, situated in the south-west part of Anderson Plain, District of Mackenzie, Northwest Territories] / Nolin, L. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1990.
1 v.
(Manuscript report – Archaeological Survey of Canada, no. 3371)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Addendum to Pilon 1990.
Text in French.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Les fouilles archeologiques effectuees sur le site NbTj-3 demontrent qu'il fut reoccupe a de nombreuses reprises. Certains vestiges suggerent sa frequentation possible jusqu'a la periode historique. Par ailleurs, il aurait ete utilise comme lieu de collecte et de taille de materiaux lithiques ainsi que de site d'habitation. Sa position geographique exceptionelle, et la decouverte de temoins culturels sur des surplombs situes a plus de 30 metres d'altitude qui dominent les plans d'eau environnants, nous suggerent qu'il aurait pu etre utilise comme promontoire pour surveiller les deplacements des caribous. La presence de materiaux lithiques "exotiques" sur ce lieu d'habitation nous portent acroire que des groupes qui l'on occupe etaient en contacts avec des populations et/ou des regions eloignees du lac Hyndman. La breve intervention archeologique sur le site NbTj-1 a permis de demontrer qu'il fut aussi reoccupe et utilise comme site d'habitation (presence d'outils et d'une grande quantite de restes fauniques), vraisemblablement jusqu'a la periode prehistorique recente. (Au)

U-308978

Report of the 1990 NOGAP archaeological field activities in the southwest Anderson Plain and in the Mackenzie Valley, District of Mackenzie, Northwest Territories / Pilon, J.-L. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1990.
1 v.
(Manuscript report – Archaeological Survey of Canada, no. 3371)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Addendum by Luc Nolin.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Excavations undertaken at NbTj-9 and NbTj-17 on Hyndman Lake confirmed the occupation of these localities by groups related to the Arctic Small Tool tradition (ASTt). This brings the number of such sites on Hyndman Lake to three. Links with the coastal zone in the vicinity of Cape Bathurst peninsula are confirmed with the discovery of vesicular clinker debitage at NbTj-17. While the acquisition of local raw materials at NbTj-9 is inferred by the profusion of cores, nodular fragments and debitage, the collection from NbTj-17 is relatively modest and consists primarily of the remains of implements and debitage associated with resharpening and final shaping. The differences between the two sites may indicate seasonal differences. Thus, the three ASTt sites likely attest to a complex adaptation to the interior rather than a casual presence. Continued site survey in the SW Anderson Plain resulted in the discovery of an additional 7 sites, for a total of 111 sites since the NOGAP began work in this region. Semi-subterranean structures, most of which are provisionally interpreted as the remains of winter dwellings, now number 53 for the entire SW Anderson Plain. Before the NOGAP work only one such structure was known. (Au)

U-308986

Report of the 1988 NOGAP archaeological field activities in the southwest Anderson Plain and in the Mackenzie Valley, District of Mackenzie, Northwest Territories, volume 2 / Pilon, J.-L. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1989.
107 p.
(Manuscript report – Archaeological Survey of Canada, no. 3039)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of the completion of two Hyndman Lake sites found in 1987 as well as the continuation of the initial site survey of the Hyndman Lake area, and surveys of Big Woman Lake and Spillway Lake, located upstream from Hyndman Lake. Of the 19 sites examined, 17 contained evidence of past human use. One in particular had affinities with the ASTt. Excavation yielded an ASTt assemblage in good association with a hearth feature radiocarbon dated to 3390 +/- 255 B.P. Elsewhere on Hyndman Lake, the presence of a blade/microblade industry was confirmed. The Thunder River site located at the mouth of the Thunder River was revisited. (NOGAP)

U-308994

Report of the 1987 NOGAP archaeological field activities in the southwest Anderson Plain, District of Mackenzie, Northwest Territories, volume 3 / Pilon, J.-L. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1988.
85 p.
(Manuscript report – Archaeological Survey of Canada, no. 2912)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of the third season of NOGAP fieldwork undertaken in the southwest Anderson Plain. Lac a la Truite – excavation and testing of MlTk-2 and 3 and site survey in the western portion of the lake and elsewhere in the SW Anderson Plain. Excavation of the NlTj-2 semi-subterranean feature. Hyndman Lake – survey and identification of 10 sites. Thirty site localities were examined, 27 with evidence of use by man. The total number of semi-subterranean features known from the SW Anderson plain is now 34: 17 were discovered during the 1987 season. Two of these were excavated and two others were extensively tested. These features date to the last millenium. Evidence for older occupations was also discovered. Twenty-seven new sites were identified, five were revisited and collections were made at 18 sites. (NOGAP)

U-309001

Report of the 1986 NOGAP archaeological field activities in the southwest Anderson Plain and in the Mackenzie Valley, volume 5 / Pilon, J.-L. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1987.

34 p.

(Manuscript report – Archaeological Survey of Canada, no. 2700)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Report of the second season of fieldwork in the southwest Anderson Plain. A number of previously known sites (5) were revisited in order to collect additional information and 18 new sites were found. Semi-subterranean house pits were discovered on four of the revisited sites. Two other house pits were discovered on one of the newly discovered sites. Most of the new sites consist of thin scatters of faunal remains and lithic debitage and occasionally evidence of combustion activities. Most of the sites appear to relate to the late prehistoric period. (NOGAP)

U-309010

Assessment of landscape archaeological potential in Tenlon [sic], Sandy and Jiggle Lake NOGAP areas, volume 1 / Terrain Analysis and Mapping Services Limited. Rampton, V.N. Archaeological Survey of Canada [Sponsor].

[S.l.] : Archaeological Survey of Canada, 1987.

27 p.

(Manuscript report – Archaeological Survey of Canada, no. 2899)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Results of a study undertaken during the summer of 1987 to map and predict the archaeological potential of landscape within the Tenlen Lake area, and the Sandy Lake and Jiggle Lake areas located on the Anderson Plain near Travaillant Lake. The archaeological potential and numerous identifiers for the landscape units are given on maps 1 and 2. Tables 1 and 2 provide geomorphological factors affecting occupations, preservation and discovery, age, archaeological potential and category for each landscape unit, ie. grouping the unit according to genetic origin, landscape position and common archaeological potential. (NOGAP)

U-309028

General comments on geological factors re archaeological potential, Beaufort sector of NOGAP project, volume 2 / Terrain Analysis and Mapping Services Limited. Rampton, V.N. Archaeological Survey of Canada [Sponsor].

[S.l.] : Archaeological Survey of Canada, 1987.

6 p.

(Manuscript report – Archaeological Survey of Canada, no. 2899)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

General comments on geological factors regarding archaeological potential in the Beaufort sector. Yukon coastal plain, southern Richards Island, Palaeo-McKinley channel and adjacent environs, Cape Bathurst peninsula, Harrowby Bay, Old Horton channel, Horton River. Also general comments regarding archaeological potential ratings and further geological input. (NOGAP)

U-309036

A report of aerial photography and photographic interpretation in support of the Northern Oil and Gas Action Plan (NOGAP), archaeological assessment of the Lancaster Sound region, N.W.T., volume 1 / Roy, P.H. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1987.

118 p.

(Manuscript report – Archaeological Survey of Canada, no. 2931)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Aerial photography and photographic interpretation of known and unknown archaeological sites in the Devon Island/Lancaster Sound area. About 100 miles of shoreline was photographed using two film types flown at four scales, producing 312 line miles of photography. Includes three areas: Maxwell Bay and Croker Bay on the south coast of Devon Island and various parts of the north coast of Brodeur Peninsula, Baffin Island. Comparison studies of an area ground searched in 1985 (Maxwell Bay) and "blind testing" of the 1987 ASC-CMC field area (Croker Bay) were undertaken. Report includes site and photo cross-index and site locality work sheets indicating each site, number of features at each site and including geomorphic modifiers, description and comments where applicable. (NOGAP)

U-309044

Interim report for contract no. 1630-5m-052 : NOGAP assessment of the Lancaster Sound region : an archaeological survey of the southwest coast of Devon Island from Wellington Channel to Stratton Inlet, volume 1 / Sutherland, P.D. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1985.

88 p.

(Manuscript report – Archaeological Survey of Canada, no. 2507)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Report on helicopter and walking surveys and test excavations of archaeological sites along the southwest coast of Devon Island from Wellington Channel to Stratton Inlet. Over 150 sites located, the majority from the air. Preliminary results: lengthy occupational history for the southwest coast of Devon Island. Late Dorset is the most substantial presence, although there are suggestions of an earlier Palaeoeskimo occupation and indications of an early and late Thule settlement. In addition, 19th and 20th century Inuit sites were recorded. The vast majority of sites were located on or near Lancaster Sound. No sites were located from the interior areas surveyed. Sites ranged from single component to multi-component and from individual isolated features to settlements containing 40 features. The site types found suggest multi-utilization. Artifacts include late Dorset lithics and art

specimens, Thule harpoon heads, and historic artifacts in metal. (NOGAP)

U-309052

NOGAP assessment of the Lancaster Sound region : an archaeological survey of the southeast coast of Devon Island from Stratton Inlet to Cape Sherard / Sutherland, P.D. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1987.

44 p.

(Manuscript report – Archaeological Survey of Canada, no. 3018)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Report of a preliminary reconnaissance of the Lancaster Sound coast between Stratton Inlet and Cape Sherard was completed by helicopter. Approximately 100 previously unreported sites were recorded: the majority of these were aerially observed. Surface collections were made at six sites. At Lemieux Point, near base camp, test excavations were conducted at two previously reported Neoeskimo sites. Preliminary survey results indicate a lengthy occupation of the southwest coast of Devon Island. The most substantial presence in this area is Neoeskimo, but there is evidence of both Dorset and earlier Palaeoeskimo occupations. A separate pilot project using aerial photographic techniques for site identification was carried out by Paul Roy in conjunction with this survey work. (NOGAP)

U-309060

Northern Oil and Gas Action Plan assessment of the Lancaster Sound region : a baseline study of the archaeological resources / Sutherland, P.D. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1988.

173 p. + 1 atlas.

(Manuscript report – Archaeological Survey of Canada, no. 3379)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

While the emphasis of the NOGAP-Archaeology project is upon the Mackenzie Valley/Beaufort Sea region, the project is also concerned with the Northwest Passage, an area that would be part of the most likely tanker route to the east coast of North America or to Europe. In this study, the archaeological resources of Lancaster Sound, the easternmost portion of the Northwest Passage, are inventoried and assessed in terms of both research and management considerations. The focus is upon the south coast of Devon Island, where two seasons of archaeological survey and limited test excavations, carried out as part of the NOGAP-Archaeology project, have revealed a rich and lengthy occupational history. Detailed baseline information is provided for over 250 archaeological sites on the south coast of Devon Island. In addition, archaeological data for pertinent areas of Cornwallis, Somerset, Baffin and Bylot islands is reviewed. (Au)

U-309079

Pre-NOGAP Neoeskimo collections from the greater Mackenzie River Delta / Swayze, K. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1991.

1 v.

(Manuscript report – Archaeological Survey of Canada, no. 3372)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

The purpose of this study was to review the pre-NOGAP data base for Neoeskimo sites in the greater Mackenzie Delta region in order to update NOGAP files. Prior to NOGAP research the ASC had reports of 79 Neoeskimo sites in this area two general areas where Neoeskimo material had been collected. Of these 81 localities 61 have an artifact collection stored at CMC and 45 of these were analysed and described in the course of this project. Most collections are small, consisting of only a few artifacts, however nine are relatively large and consequently have more research potential. These collections were described and analysed in more detail. In addition to collection assessment, catalogue sheets were updated, missing artifacts noted and information concerning site condition and artifact provenience was collated. Many of the collections are notable because of rare wooden artifacts and because many of the sites from which they came are now destroyed by coastal erosion. (NOGAP)

U-309087

Engigstciak revisited / Cinq-Mars, J. MacNeish, R.S. Nelson, E. Archaeological Survey of Canada.

[S.l. : s.n.], 1988.

1 v.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(Manuscript report – Archaeological Survey of Canada, no. 1955)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Three accelerator mass spectrometry (AMS) 14C dates on butchered bison bones, together with other available lines of evidence from the lower stratigraphic units of the "Buffalo Pit", at Engigstciak, on the Firth River, northern Yukon, converge to support the notion that a form of bison procurement was being implemented by hunters along portions of the Yukon Coastal Plain between 9,800 and 9,400 B.P., i.e. in early Holocene times. These data allow us to stress the importance of the site in our understanding of cultural history in this region and to contemplate the possibility of investigating further poorly known aspects of cultural adaptive systems in a northwestern Arctic environment shortly after the end of the late glacial. (Au)

U-309095

The Trout Lake archaeological locality : a northern Yukon site cluster / Boreal Institute for Northern Studies. Greer, S. Archaeological Survey of Canada [Sponsor].

[S.l. : s.n.], 1988.

9 p.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(Manuscript report – Archaeological Survey of Canada, no. 3020)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association,

Whistler, B.C., May 11-14, 1988.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

A reanalysis of collections from the Trout Lake area of northern Yukon challenges the integrity of what has become known as the type site of the British Mountain culture. The main Trout Lake site (NfVi-10) is seen as a mixed, multi-component deposit and its so-called British Mountain component is interpreted as lithic workshop debris. The collections from both NfVi-10 and the Northeast site (NeVi-9), the other main so-called British Mountain site in the Trout Lake area, features artifacts assignable to a number of different prehistoric cultures; the most easily recognizable of these are local variants of the Denbigh, Choris and Norton western Palaeoeskimo cultures. (Au)

U-309109
Mackenzie Inuit prehistory as seen from the Washout Site (NjVi-2) Herschel Island, Yukon north coast, volume 5 / Hunston, J. Archaeological Survey of Canada.
[S.l. : s.n.], 1986.
10 p.
(Manuscript report – Archaeological Survey of Canada, no. 2587)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 19th annual meetings of the Canadian Archaeological Association, April 26 1986.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Paper includes a discussion of previous archaeological work on Herschel Island by Stefannsen in 1909 at Osborne Point, MacNeish's Firth River survey, testing of historic house mounds at Pauline Cove by Millar (1972), Bockstoce's excavations of two historic house features at Pauline Cove, and finally, Yorga's Washout site excavations of 1977 and 1978. Followed by a discussion of the 1985 excavation results at Washout: artifact assemblage, faunal specimens, sediment deposits, house construction details. Continued discussion of cultural affiliation (Western Thule Nunagiak phase). (NOGAP)

U-309117
Archaeological reconnaissance and test excavations in the Mackenzie Delta-Beaufort Sea region of the NOGAP study area / University of Alberta. Dept. of Anthropology. Le Blanc, R.J. Archaeological Survey of Canada [Sponsor].
[S.l. : s.n.], 1988.
10 p.
(Manuscript report – Archaeological Survey of Canada, no. 3021)
(NOGAP project no. F.01 : Northern nydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

This paper deals with the results of archaeological investigations which have shed new light on the prehistory of the Mackenzie Delta Region of the Northwest Territories. In particular, test excavations were conducted at several sites, among them a microblade and burin site (NkTj-1) situated on a late Pleistocene palaeo-channel on the Tuktoyaktuk Peninsula, and two Arctic Small Tool tradition (ASTt) sites located in a dense cluster of 34 sites on the Old Horton Channel on the Cape Bathurst Peninsula. The assemblage from NkTj-1 is thought to represent a Northwest Microblade tradition component, although there may be evidence of potentially earlier material. Of the two ASTt sites, one (ObRv-1) is clearly related to a distinctive, late ASTt variant found at the Lagoon site (OjRl-3) on Banks Island. The other ASTt site (ObRw-11) has materials which suggest an early Palaeoeskimo, Independence 1-like occupation. Finally, the location of many of the sites on the Old Horton River channel is situated in a region where a glassy and vesicular fused rock is being produced by spontaneous combustion of organic-rich mudstones. This material was being exploited for tool production by Palaeoeskimo, and possibly other cultures in the region. (Au)

U-309125
The later prehistory of Amundsen Gulf / Morrison, D.A. Archaeological Survey of Canada.
[S.l. : s.n.], 1988.
15 p.
(Manuscript report – Archaeological Survey of Canada, no. 1948)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Archaeological excavation and ethnohistorical tradition together indicate the existence of a previously unrecognized Mackenzie Inuit group, living in the Franklin Bay area east of Cape Bathurst into the early historic period. They appear to have been decimated by disease and starvation in the early 19th century, with survivors fleeing west to Baillie Island. Further east yet, the Amundsen Gulf coast as far as Dolphin and Union Strait was apparently unoccupied during the late prehistoric period, for reasons which remain unknown. Previously, however, it was occupied by a Thule culture population which was very similar to that of the western Coronation Gulf area. This "Clachan phase" of Thule culture was probably at least in part ancestral to both the Mackenzie and Copper Inuit. (Au)

U-309133
Caribou exploitation at NgVh-1 (northern Yukon) / University of Alberta. Dept. of Anthropology. Nagy, M. Archaeological Survey of Canada [Sponsor].
[S.l. : s.n.], 1988.
15 p.
(Manuscript report – Archaeological Survey of Canada, no. 1953)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

From analyses of archaeological remains at site NgVh-1, we examined the activities linked to caribou hunting by the Mackenzie Delta Inuit, who occupied the northern Yukon site at the end of the prehistoric period. NgVh-1 is a habitation site located west of the Trail River, about 25 km south of the Beaufort Sea. The presence of foetal and neonate caribou and of medullary bone in some ptarmigan remains indicates that the site was occupied from late May until late June. Activities related to bone processing, tool manufacture, and skin working were shown to have been carried out at the site. Analysis of

the faunal material has demonstrated that 21 species were present, of which caribou and ptarmigan were the most important. The site also has abundant debris associated with objects made from antler and, to a lesser degree, with those made of bone. (Au)

U-309141

New insights into the prehistory of the lower Mackenzie Valley, Anderson Plain region, Northwest Territories / Pilon, J.-L. Archaeological Survey of Canada.

[S.l. : s.n.], 1988.

11 p.

(Manuscript report – Archaeological Survey of Canada, no. 3022)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Paper on the prehistory of the lower Mackenzie Valley, southwest Anderson Plain region; ie. the region of large lakes which form the head waters of major streams flowing north (Kugaluk River), south (Travaillant), east (Iroquois-Comwath), and west (Rengleng). The findings of NOGAP research (1985-1987 field seasons) in this area are described. (NOGAP)

U-309150

NOGAP archaeology in the southwest Anderson Plain and in the lower Mackenzie Valley, Northwest Territories / Pilon, J.-L. Archaeological Survey of Canada.

[S.l. : s.n.], 1987.

10 p.

(Manuscript report – Archaeological Survey of Canada, no. 2856)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the NOGAP Session of the 20th annual meetings of the Canadian Archaeological Association, Calgary, Alta., April 22-26 1987.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

During the first four years of the NOGAP Archaeology Project, 104 new archaeological sites were found in the southwest Anderson Plain. These sites are generally characterized by thin lithic scatters comprised mainly of undiagnostic debitage. In spite of the frustrating nature of the region's archaeology, elements of a local culture-history are emerging. Many of the sites attest to the late prehistoric Gwich'in occupation of the region. Earlier cultural remains have been found which relate to the use of the area by the Arctic Small Tool tradition, and a second, non-ASTt, microblade manufacturing group. Although external relationships can be drawn, at present, it appears more fruitful to identify and define local culture-historical parameters. (Au)

U-309168

A Palaeo-Eskimo site at Hyndman Lake, Anderson Plain, N.W.T. : implications for our understanding of ASTt land use patterns in the western Canadian Arctic / Pilon, J.-L. Archaeological Survey of Canada.

[S.l. : s.n.], 1990.

1 v.

(Manuscript report – Archaeological Survey of Canada, no. 3368)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the 23rd annual meetings of the Canadian Archaeological Association, Whitehorse, Y.T., May 9-13 1990.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

An early Palaeo-Eskimo component, dating to 3390 +/- 255 was discovered while investigating a late prehistoric Athapaskan semi-subterranean house feature at Hyndman Lake, 110 km east of Inuvik N.W.T. The ASTt assemblage consists of implements with a marked Alaskan character. The presence of a small quantity of vesicular clinker, a raw material found in profusion on Palaeo-Eskimo sites of the Cape Bathurst peninsula, suggests that the ASTt occupants of Hyndman Lake also utilized the resources of the coastal region. Taking into account coastal subsidence and fluctuations in the position of the tree-line, the site was likely in a forested region at the time of the ASTt occupation. It seems likely that the Hyndman Lake site represents an inland component of the local ASTt annual cycle, rather than a hitherto undocumented band-herd association. (Au)

U-309176

Geomorphology as an aid to mapping archaeological resources in NOGAP areas / Terrain Analysis and Mapping Services Limited. Rampton, V.N. Archaeological Survey of Canada [Sponsor].

[S.l. : s.n.], 1988.

11 p.

(Manuscript report – Archaeological Survey of Canada, no. 1947)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14 1988.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

By incorporating air photo and surficial geology map interpretations, terrain units are defined. Landscape units combine terrain units and other physical parameters, such as drainage, presence of permafrost, etc., which are thought to affect archaeological potential. Finally, landscape categories based on geomorphology in conjunction with position or geographic location allow for an effective means of classifying the archaeological potential of large areas of landscape. (Au)

U-309184

Archaeological faunal remains from the southwest Anderson Plain, N.W.T. / National Museum of Natural Sciences (Canada). Zooarchaeological Identification Centre. Still, L.A. Archaeological Survey of Canada [Sponsor].

[S.l. : s.n.], 1988.

11 p.

(Manuscript report – Archaeological Survey of Canada, no. 1952)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14 1988.

Document not seen by ASTIS. Citation from NOGAP.
OONMM

The analysis of 12 faunal samples collected in the Southwest Anderson Plain demonstrates a clear dependence on caribou as a primary dietary mainstay in late prehistoric times. The secondary focus shifted seasonally between snowshoe hare, fish and waterfowl. This analysis has also identified a number of bone disposal techniques which included burning in the domestic fire, gathering and burial, and possibly disposing of the bones of certain species in a nearby lake or stream. (Au)

U-309192
Prehistoric clinker use on the Cape Bathurst Peninsula, Northwest Territories, Canada : The dynamics of formation and procurement / University of Alberta. Dept. of Anthropology. Le Blanc, R.J. Archaeological Survey of Canada [Sponsor].
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(American antiquity : a quarterly review of American archaeology, v. 56, no. 2, Apr. 1991, p. 268-277, ill., maps)
References.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Fieldwork conducted on the Cape Bathurst Peninsula, Northwest Territories, Canada, has resulted in the discovery of 75 sites representing occupations spanning more than 3,000 years. Nearly all of the sites are characterized by the predominant use of a distinctive rock called a "clinker". Resembling a basalt-to-obsidian-like material, it is formed by the spontaneous combustion of local organic-rich shales. The fusing occurs in burning areas called bocannes that are common along the Horton River and the cliffs along the eastern shore of the peninsula. Despite the evidence for intensive use on Cape Bathurst and the more general Mackenzie Delta region, none of the four potential quarry sources yielded evidence of actual prehistoric use. This is attributed to the dynamic nature of the formation and erosion of the bocannes over the last several thousand years. (Au)

U-309206
The Kugaluk site and the Nuvorugmiut / Morrison, D.A. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1988.
1 v.
(Mercury series)
(Paper – Archaeological Survey of Canada, no. 137)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
ISBN 0-660-10778-3.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Kugaluk (NgTi-1) is a small historic Inuit site located near the outlet of the Eskimo Lakes. It consists of three semi-subterranean houses, middens and activity areas. One house was excavated with its adjacent midden, along with the activity areas. From its location Kugaluk can be attributed to the Nuvorugmiut, the largest branch of the Mackenzie Inuit. Historic accounts suggest the Nuvorugmiut engaged in summer-time whale hunting until about 1880, after which summer-time caribou hunting became more important. Analysis of over 45,000 animal bones and about 1,000 artifacts indicates that Kugaluk was occupied between 1850 and 1875, and intensive caribou hunting was carried out. It is suggested that pronounced status differences may have accompanied different subsistence choices. (NOGAP)

U-309214
L'exploitation du caribou au site de la Riviere Trail (NgVh-1) dans le nord du Yukon [Caribou exploitation at the Trail River site, northern Yukon] / University of Alberta. Dept. of Anthropology. Nagy, M. Archaeological Survey of Canada [Sponsor].
(Musk-ox, no. 37, 1989, p. 152-158)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Text in French.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

A travers l'etude des restes archeologiques du site NgVh-1, nous examinerons les activites liees a la chasse au caribou pratiquee par les Inuit du delta du Mackenzie qui occupaient le nord du Yukon a la fin de la periode prehistorique. NgVh-1 est un site d'habitation situe a l'ouest de la riviere Trail, a environ 25 km au sud de la mer Beaufort. Les restes de foetus et de nouveaux-nes de caribou ainsi que ceux de parties medullaires d'os de lagopedes indiquent que le site fut occupe de la fin mai jusqu'a la fin juin. On a demontre que des activites liees au traitement des os, a la manufacture d'outils et au travail des peaux, furent effectuees par les habitants du site. Lors de l'analyse des vestiges fauniques, on a identifie 21 especes animales, parmi lesquelles le caribou et les lagopedes sont le plus frequentes. Le site contient aussi une abondante concentration de debris associes a la production d'objets en bois de caribous et, dans une moindre mesure, ceux associes a la production d'objets en os. (Au)

U-309222
Riddle at Thunder River : An archaeological detective story / Pilon, J.-L. Archaeological Survey of Canada.
(Up here, life in Canada's north, v. 5, no. 6, Nov./Dec. 1989, p. 40-42)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

The analysis of archaeological specimens gathered in 1988 at the mouth of the Thunder River (MiTi-1), lower Mackenzie Valley, indicates that the locality's primary function was as a quarry/workshop. Historical and toponymic data show that this was likely the quarry identified by Alexander Mackenzie on 24 July 1789. Collections from the southwest Anderson Plain contain high proportions of Thunder River siliceous argillite, some obtained from beach gravels or till deposits, while some was obtained from primary geological deposits. In collections from peripheral areas, Thunder River siliceous argillite is occasionally found and often consists of the end-products of lithic reduction. It is especially interesting to confirm the presence of Thunder River siliceous argillite in Mackenzie Delta Inuit sites. A critical evaluation of all available data shows that Alexander Mackenzie's journal was relatively accurate with respect to this lithic source. (Au)

U-309230
Using aerial photography for site survey in arctic Canada : The Lancaster Sound NOGAP study / Sutherland, P.D. Roy, P. Archaeological Survey of Canada.
(Canadian journal of archaeology, v. 15)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
In press.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Aerial photography is widely recognized as one of the most efficient means of conducting a survey, particularly in inaccessible areas. Despite this, its application in archaeological studies within Canada has been quite limited. Since the late 1940s aerial photography has been used for mapping purposes throughout the Canadian Arctic with excellent results. In 1987, a pilot study using low level aerial photography for archaeological survey was undertaken in the Lancaster Sound region of High Arctic Canada, as part of the NOGAP Arcaheology Project. This paper examines the procedure used and the results obtained in the pilot study, and discusses the efficacy of this approach relative to conventional survey methods. It concludes that aerial photography is a cost-effective technique for archaeological reconnaissance of large and relatively inaccessible areas in the Canadian High Arctic. (Au)

U-309249

The NOGAP archaeology project : a brief introduction / Cinq-Mars, J. Pilon, J.-L. Archaeological Survey of Canada.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 1-5, 1 map)

References.

OORD

This paper briefly summarizes the reason for the initiation of the Northern Oil and Gas Action Program (NOGAP), its history, and achievements to date. The paper also provides a brief introduction to the collection of papers bound in this, the first occasional paper of the Canadian Archaeological Association. (ASTIS)

U-309257

Archaeological field training in the NOGAP area / Arnold, C.D. Prince of Wales Northern Heritage Centre. Hanks, C.C. Canadian Parks Service. National Historic Parks and Sites. Archaeological Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 7-13, ill.)

References.

OORD

Northern Native people have a long-standing interest in their archaeological heritage, but seldom have had opportunities to participate in archaeological studies. The Prince of Wales Northern Heritage Centre received NOGAP funding in 1985 and 1986 to help resolve that problem by preparing and providing archaeological field training programs in the hydrocarbon development area. We have found that the key to effective training for people who lack an academic background is to make archaeology relevant. This paper summarizes our approach to archaeological field training, and identifies other ways that native people can participate in archaeological studies. Benefits which archaeological projects can derive from participation by native peoples are also discussed. (Au)

U-309265

The Trout Lake archaeological locality and the British Mountain problem / Canadian Circumpolar Institute. Greer, S.C. Archaeological Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 15-31, ill., 1 map)

Appendix.

References.

OORD

A reanalysis of collections from the Trout Lake area of northern Yukon challenges the integrity of what has become known as the type site of the British Mountain culture. The main Trout Lake site (NfVi-10) is seen as a mixed, multi-component deposit and its so-called British Mountain component is interpreted as lithic workshop debris. The collections from both NfVi-10 and the Northeast site (NeVi-9), the other main so-called British Mountain site in the Trout Lake area, features artifacts assignable to a number of different prehistoric cultures; the most easily recognizable of these are local variants of the Denbigh, Choris and Norton western Palaeoeskimo cultures. (Au)

U-309273

Engigstciak revisited : A note on early Holocene AMS dates from the buffalo pit / Archaeological Survey of Canada. Cinq-Mars, J. Canadian Museum of Nature. Harington, C.R. Simon Fraser University. Dept. of Archaeology. Nelson, D.E. Andover Foundation for Archaeological Research. MacNeish, R.S. Archaeological Survey of Canada [Sponsor].

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 33-44, ill., maps)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

References.

OORD

Three (accelerator mass spectrometry – AMS) 14C dates on butchered bison bones, together with other available lines of evidence from the lower stratigraphic units of the "Buffalo Pit", at Engigstciak, on the Firth River, northern Yukon, converge to support the notion that a form of bison procurement was being implemented by hunters along portions of the Yukon Coastal Plain between 9,800 and 9,400 B.P., i.e. in early Holocene times. These data allow us to stress the importance of the site in our understanding of cultural history in this region and to contemplate the possibility of investigating further poorly known aspects of cultural adaptive systems in a northwestern Arctic environment shortly after the end of the late glacial. (Au)

U-309281

Bone and antler tools from a late prehistoric Mackenzie Inuit site / University of Alberta. Dept. of Anthropology. Nagy, M. Archaeological Survey of Canada [Sponsor].

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 45-54, ill., maps)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology :

A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
References.
OORD

This paper presents the results of a technological analysis of bone and antler remains from the Trail River site, in the northern Yukon. The site was notable for the heavy concentration of by-products associated with the manufacture of antler artifacts. There was also some evidence for the production of bone tools. The analysis was undertaken to determine the function of the feature where the bone and antler assemblage was found. Recognition of two types of gear was substantiated by the analysis of manufacturing techniques performed on the associated by-products. Personal gear (e.g. arrowheads, knife handles), made from antler, was manufactured with considerable effort and skill. These tools would have been prepared in anticipation of future caribou hunting. Situational gear (e.g. awls, scrapers), made from bone obtained on site, was manufactured expediently and intended for immediate use. (Au)

U-309290

Geomorphology as an aid to mapping archaeological resources in NOGAP areas / Terrain Analysis and Mapping Services Limited. Rampton, V.N. Archaeological Survey of Canada [Sponsor].
(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 55-63, maps)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
References.
OORD

By incorporating air photo and surficial geology map interpretations, terrain units are defined. Landscape units combine terrain units and other physical parameters, such as drainage, presence of permafrost, etc., which are thought to affect archaeological potential. Finally, landscape categories based on geomorphology in conjunction with position or geographic location allow for an effective means of classifying the archaeological potential of large areas of landscape. (Au)

U-309303

New data relating to the prehistory of the Mackenzie Delta region of the NOGAP study area / University of Alberta. Dept. of Anthropology. Le Blanc, R.J. Archaeological Survey of Canada [Sponsor].
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 65-76, ill., maps)
References.
OORD

This paper deals with the results of archaeological investigations which have shed new light on the prehistory of the Mackenzie Delta region of the Northwest Territories. In particular, test excavations were conducted at several sites, among them a microblade and burin site (NkTj-1) situated on a late Pleistocene palaeo-channel on the Tuktoyaktuk Peninsula, and two Arctic Small Tool tradition (ASTt) sites located in a dense cluster of 34 sites on the Old Horton Channel on the Cape Bathurst Peninsula. The assemblage from NkTj-1 is thought to represent a Northwest Microblade tradition component, although there may be evidence of potentially earlier material. Of the two ASTt sites, one (ObRv-1) is clearly related to a distinctive, late ASTt variant found at the Lagoon site (OjRl-3) on Banks Island. The other ASTt site (ObRw-11) has materials which suggest an early Palaeoeskimo, Independence I-like occupation. Finally, the location of many of the sites on the Old Horton River channel is situated in a region where a glassy and vesicular fused rock is being produced by spontaneous combustion of organic-rich mudstones. This material was being exploited for tool production by Palaeoeskimo, and possibly other cultures in the region. (Au)

U-309311

The later prehistory of Amundsen Gulf / Morrison, D.A. Archaeological Survey of Canada.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 77-87, ill., maps)
References.
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
OORD

Archaeological excavation and ethnohistorical tradition together indicate the existence of a previously unrecognized Mackenzie Inuit group, living in the Franklin Bay area east of Cape Bathurst into the early historic period. They appear to have been decimated by disease and starvation in the early 19th century, with survivors fleeing west to Baillie Island. Further east yet, the Amundsen Gulf coast as far as Dolphin and Union Strait was apparently unoccupied during the late prehistoric period, for reasons which remain unknown. Previously, however, it was occupied by a Thule culture population which was very similar to that of the western Coronation Gulf area. This "Clachan phase" of Thule culture was probably at least in part ancestral to both the Mackenzie and Copper Inuit. (Au)

U-309320

Insights into the prehistory of the lower Mackenzie Valley, Anderson Plain region, Northwest Territories / Pilon, J.-L. Archaeological Survey of Canada.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 89-111, ill., maps)
References.
OORD

During the first four years of the NOGAP Archaeology Project, 104 new archaeological sites were found in the southwest Anderson Plain. These sites are generally characterized by thin lithic scatters comprised mainly of undiagnostic debitage. In spite of the frustrating nature of the region's archaeology, elements of a local culture-history are emerging. Many of the sites attest to the late prehistoric Gwich'in occupation of the region. Earlier cultural remains have been found which relate to the use of the area by the Arctic Small Tool tradition, and a second, non-ASTt, microblade manufacturing group. Although external relationships can be drawn, at present, it appears more fruitful to identify and define local culture-historical parameters. (Au)

U-309338

The basket case : Deciphering subsistence patterns in the southwest Anderson Plain region, N.W.T., in the late prehistoric period / National Museum of Natural Sciences (Canada). Zooarchaeological Identification Centre. Still, L. Archaeological Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 113-129, ill., 1 map)

References.

OORD

The analysis of 12 faunal samples collected in the Southwest Anderson Plain demonstrates a clear dependence on caribou as a primary dietary mainstay in late prehistoric times. The secondary focus shifted seasonally between snowshoe hare, fish and waterfowl. This analysis has also identified a number of bone disposal techniques which included burning in the domestic fire, gathering and burial, and possibly disposing of the bones of certain species in a nearby lake or stream. (Au)

U-309346

Archaeological site distributions on the south coast of Devon Island, High Arctic Canada / Sutherland, P.D. Archaeological Survey of Canada.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 131-142, ill., maps)

References.

OORD

Helicopter and foot surveys carried out in 1985 and 1987 by the NOGAP-Archaeology Project, covered most of the southern coast of Devon Island. The 269 sites recorded represent all known periods of prehistoric and historic occupation of the High Arctic. Analysis of the distribution of components suggests that coastal locations close to the mouths of bays and fjords were favored by most prehistoric occupants of the area. Palaeoeskimo occupations appear to have been more heavily concentrated in the western portions of the coast, and Dorset occupations were particularly associated with the inner coasts of the large bays of southwestern Devon Island. Neoeskimo occupations were more evenly distributed throughout the survey area. It is postulated that these distributions can be best explained in terms of access to different sea ice environments and the sea mammals associated with these environments. (Au)

U-309354

Accelerator radiocarbon dates from the Northern Oil and Gas Action Plan (NOGAP) / Simon Fraser University. Dept. of Archaeology. Vogel, J.S. Brown, T.A. Southon, J.R. Nelson, D.E. Archaeological Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 143-147, ill.)

References.

OORD

The technique of accelerator mass spectrometry was used to provide radiocarbon ages for 31 bone, antler and wood samples. The samples were sufficiently large (0.25 – 2 g) and well-preserved that routine preparative procedures could be used. We encountered no unusual problems, and so we are confident that the results obtained are reliable. (Au)

U-309362

Appendix I : NOGAP AMS dates / Cinq-Mars, J. [Compiler]. Archaeological Survey of Canada.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 149-154)

References.

OORD

Appendix I offers a compilation of all the comments made by various researchers on our first series of 31 AMS 14C dates. (NOGAP)

U-309370

Appendix II : NOGAP bibliography / Dale, R.J. [Compiler]. Pilon, J.-L. [Compiler]. Archaeological Survey of Canada.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.-L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 155-159)

OORD

Appendix II consists of a detailed listing of all available documents produced to date, directly or indirectly, by and/or for the NOGAP Archaeology Project. The list includes in-house reports, conference papers as well as titles of publications derived from NOGAP funded work. It provides the reader with a realistic measure of the activities carried out during the first part of the project. (NOGAP)

U-309648

Qikiqtaruk 1990 : archaeological investigations on Herschel Island, Yukon Territory / Friesen, T.M. Yukon Territory. Heritage Branch.

[Whitehorse, Y.T.] : Yukon Territory, Dept. of Tourism, Heritage Branch, 1991.

v, 110 leaves : ill., maps ; 28 cm.

(NOGAP project no. G.18 : North coast heritage research and protection)

Appendices.

References.

YWA, OORD, ACU

The goal of the 1990 field season of the Qikiqtaruk Archaeology Project was to investigate Inuvialuit lifeways on Herschel Island before the incursion of Euro-American whalers in the 1890s. To this end, the author excavated two large Inuvialuit winter houses at Pauline Cove,

the largest prehistoric and historic archaeological site on Herschel Island. One house yielded artefacts representative of a late prehistoric occupation, with no evidence of contact with Euro-Americans. The artefacts and faunal remains from this house indicate a significant reliance on ringed seal, with additional use of caribou, fish, and migratory birds. The second house yielded quantities of trade goods, as well as traditional artefacts, which together suggest an occupation just prior to the arrival of American whalers in 1890. This second artefact assemblage indicates that proto-historic Inuvialuit of Herschel Island lived a traditional lifestyle, as indicated by the many hunting, fishing, and household implements which are made of locally-available materials such as wood, bone, ivory, and ground slate. Only a few Euro-American artefact types were imported by the occupants, primary among which are breech-loading rifle technology and ornamental artefacts such as glass beads and buttons. (Au)

U-309737
Iglulualumiut prehistory : the lost Inuit of Franklin Bay / Morrison, D. Archaeological Survey of Canada.
Hull, Quebec : Canadian Museum of Civilization, 1990.
vii, 201 p. : ill., maps ; 24 cm.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(Paper – Archaeological Survey of Canada, no. 142)
(Mercury series)
ISBN 0-660-10794-5.
References.
ACU

Archaeological excavation and ethnohistorical tradition together indicate the existence of a previously unrecognized Mackenzie Inuit group, living in the Franklin Bay area east of Cape Bathurst into the early historic period. They appear to have been decimated by disease and starvation in the early 19th century, with survivors fleeing west to Baillie Island. Further east yet, the Amundsen Gulf coast as far as Dolphin and Union Strait was apparently unoccupied during the late prehistoric period, for reasons which remain unknown. Previously, however, it was occupied by a Thule culture population which was very similar to that of the western Coronation Gulf area. This "Clachan phase" of Thule culture was probably at least in part ancestral to both the Mackenzie and Copper Inuit. (Au)

See also: S-309621, V-309656, X-309389.

V – HISTORY

V-309656
Dawson daily news, 1899-1920 : index and summary / Tosczak, J. Yukon Territory. Heritage Branch.
[Whitehorse, Y.T.] : Yukon Territory, Dept. of Tourism, Heritage Branch, 1991.
[169] p. ; 28 cm.
(NOGAP project no. G.18 : North coast heritage research and protection)
YWA, OORD, ACU

The report represents a partial index of the Dawson Daily News from its founding in 1899 to December 1920. The areas of focus are topics relating to northern Yukon, including Herschel Island, arctic whaling, missionaries, trapping/trading, arctic exploration, Yukon native peoples, and archaeological and palaeontological discoveries. In total, there are 414 newspaper listings, cross referenced by more than 100 key words. Summaries are provided for each listing. Key reference words: Herschel Island, north Yukon, arctic whaling, missionaries, Yukon native people, trading, trapping, arctic exploration, archaeology, palaeontology. (Au)

See also: B-207632, T-309400, U-306495, U-308897, U-308919, U-309206, U-309222, U-309320, U-309648.

X – GENERAL

X-190314
NOGAP bibliography / Canada. Northern Oil and Gas Action Program.
Vol. 1 (August 1986)- .
[Ottawa] : NOGAP Secretariat, Constitutional Development and Strategic Planning Branch, DIAND, 1986- .
v. ; 28 cm.
ACU

This bibliography contains citations and abstracts for published and unpublished reports and other products completed under the Northern Oil and Gas Action Program (NOGAP) from its inception in the summer of 1984 .... These items have been funded wholly or partly by NOGAP. One of NOGAP's operating objectives is to make its products widely known and available. ... (Au)

X-195499
Hydrocarbon development : a Yukon perspective : An annotated bibliography of sources available in the Yukon Archives / Cameron, N.P. Yukon Territory. Dept. of Education. Libraries and Archives Branch.
Whitehorse, Y.T. : Yukon Archives, 1986.
viii, 536 p. ; 28 cm.
(NOGAP project no. G.02 : Beaufort hydrocarbon information acquisition and processing)
ACU, YWA, OORD

This bibliography was compiled to provide greater accessibility to the vast amount of information related to northern hydrocarbon development that is available in the Yukon Archives. The geographic emphasis of the bibliography is on Yukon and the Beaufort Sea, but material dealing with the Northwest Territories and Alaska is also included. There are 1015 entries of both published and unpublished works held in the Archives, including monographs, articles in books, government and consultant reports, manuscripts and corporate records. (Au)

X-211672
NOGAP bulletin 1987/88 : annual review of NOGAP projects / Canada. Northern Oil and Gas Action Program.
Ottawa : DIAND, NOGAP Secretariat, 1987.
27 p. ; 28 cm.
Contents: I. The program and its administration. – II. NOGAP projects by participant ... Indian and Northern Affairs Canada, Fisheries and Oceans, Environment Canada, Energy, Mines and Resources Canada, Transport Canada, Canadian Museum of Civilization, Agriculture Canada, Government of Yukon Territory. Government of the Northwest Territories.
ACU

This report is the third annual review of Northern Oil and Gas Action Program (NOGAP) projects, updating the second bulletin issued in May 1986. It provides a brief description of NOGAP-funded projects to be

started or continued during 1987-88. One of NOGAP's operating objectives is to make its activities widely known. This volume is issued in support of this objective. It was compiled by the NOGAP Secretariat, Indian and Northern Affairs Canada with the assistance of Helen Ludlow, Federal-Territorial Relations Division, Northern Affairs Program, DIAND. (Au)

X-211699

NOGAP bulletin 1986/87 : annual review of NOGAP projects / Canada. Northern Oil and Gas Action Program.

Ottawa : DIAND, NOGAP Secretariat, 1986.

32 p. ; 28 cm.

Contents: I. The Program and its administration. – II. NOGAP projects by participant ... Indian and Northern Affairs Canada, Fisheries and Oceans, Environment Canada Energy, Mines and Resources Canada, Transport Canada, National Museum of Man, Agriculture Canada, Government of Yukon Territory, Government of the Northwest Territories.

ACU

NOGAP is derived from the first facet of the federal government's dual-faceted northern hydrocarbon development strategy; that is, implementing a federal/territorial coordinated and accelerated socio-economic, environmental and technical research and planning program to support government regulatory, policy and program responsibilities and to achieve a state of preparedness for northern hydrocarbon production. ... (Au)

X-287709

Hydrocarbon development – a Yukon perspective : an annotated bibliography of sources available in the Yukon Archives, volume 2 / Raines, M.R. [Compiler]. Yukon Territory. Dept. of Education. Libraries and Archives Branch.

Whitehorse, Y.T. : Yukon Archives, Libraries and Archives Branch, 1988.

x, 569 p. ; 28 cm.

(NOGAP project no. G.02 : Beaufort hydrocarbon information acquisition and processing)

Available at: Yukon Archives, Libraries and Archives Branch, Dept. of Education, Government of Yukon, Box 2703, Whitehorse, Y.T. Y1A 2C6.

ACU

... This Yukon Archives NOGAP project is designed to acquire, catalogue and make available here in Yukon, research reports and other literature associated with northern hydrocarbon development, particularly related to the Beaufort Sea, as it impacts on Yukon. The compilation of this annotated bibliography of the Beaufort Sea collection for use by researchers, members of the business community, special interest groups, and the general public, is an integral part of the project. ... Since the publication of Volume one of the bibliography, many new items have been added to the Beaufort Sea collection. Volume Two has been compiled as a companion to Volume One to provide a bibliographic survey of, and access to, the vast amount of information related to northern hydrocarbon development located in the Yukon Archives. The geographic emphasis remains Yukon and the Beaufort Sea, but material dealing with the Northwest Territories and Alaska, as well as some east coast exploration and production material is also included where it is relevant. This material makes it possible to draw analogies between developments elsewhere in Canada. Contained in the bibliography are entries for both published and unpublished works held in the Yukon Archives, including monographs, articles in books, government, consultant, and corporate reports, and conference, workshop and symposium proceedings. As with Volume One, time limitations did not permit the inclusion of serials, periodicals, newspapers or, with very few exceptions, pamphlets. The 911 entries in the bibliography have been grouped alphabetically by title within a series of broad subject categories .... (Au)

X-308501

Northern Affairs Program : environmental research projects, 1969-1987 / Shaw, B. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

[S.l.] : Canada. Dept. of Indian Affairs and Northern Development, 1987.

iv, 64 leaves ; 28 cm.

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

Appendices.

This report is to be updated annually.

OORD, NWYIN

This report contains a listing of all contracts funded by the Northern Environment Directorate and its predecessor, the Arctic Land Use Research Program, since 1970. Where the contractor prepared a report, the report number is given in the final column of the table and appendix contain the report numbers, titles and authors. This report will be updated annually. (Au)

X-309389

NOGAP bulletin 1990/1991 – 1991/1992 : review of NOGAP projects / Canada. Northern Oil and Gas Action Program.

Ottawa : DIAND, NOGAP Secretariat, 1991.

63 p. ; 28 cm.

Contents: I. The program and its administration. – II. NOGAP projects by participants: Indian and Northern Affairs Canada, Fisheries and Oceans, Environment Canada, Energy, Mines and Resources, Canadian Museum of Civilization, Government of Yukon Territory, Government of the Northwest Territories.

Introduction is translated into French.

ACU

This report is the fourth review of Northern Oil and Gas Action Program (NOGAP) projects, updating the third bulletin issued in May 1987. It provides a brief description of NOGAP-funded projects to be started or continued during the fiscal years 1990/91 and 1991/92. (Au)

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